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ABSTRACT

Data on various aspects of the revenues flowing into colleges and universities during the mid and late 1970s are provided. Attention is directed to the total amount of financial resources used for higher education, the way that the total has changed in recent years in absolute and relative terms, and who contributes what portion of the total. The following institutional perspectives are addressed: current fund revenues, sources of revenue, fund balances, and unit revenues. Investor-consumer dimensions that are covered include: the federal government's share, the state and local government's share, voluntary support, the institutional share, the student and family share, and the total amount of resources going to higher education. For each topic, a brief overview of the concepts involved is provided, along with information on the specific data issues having to do with calculations or derivations, and data problems (e.g., errors, omissions). Tables and figures that provide basic data in different contexts (e.g., current versus constant dollars) are included. Appendices include: the National Center for Higher Education Management Systems taxonomy of colleges, the Higher Education General Information Survey (HEGIS) on finance, and instructions and definitions for the HEGIS survey. (SW)

ED246817

Higher Education Financing: 1973-1980

Paul T. Brinkman

with

Larry L. Leslie

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Introduction

This document is the fourth in a series of NCHEMS monographs on higher-education indicators. Previous monographs have dealt with the costs of attending college (Brown, Kahl, and Kriz 1981), student financing of those costs (Leslie, 1982), and participation in higher education (Tierney 1982). In this fourth volume, the focus shifts to both the institutions of higher education and to the various parties that contribute to the financing of higher education.

Indicators. A generally accepted meaning for the term "social indicator" does not exist. The numerous definitions that have been set forth (for example, in U.S. Department of Health, Education, and Welfare 1969; Sheldon and Freeman 1970; Carlisle 1972; Land 1975) appear to have generated more controversy than agreement. There is even some dispute as to whether a definition is necessary (Carley 1981). Broadly construed, however, most authors would agree that social indicators can be thought of as statistical descriptions of social conditions or changes therein. Items which at one time or another have been called social indicators include everything from a series of statistical tables, as is typically provided in national social reports, to composite indices such as the Consumer Price Index, to statistical series which fit explicitly into social models. The most restrictive view is that only those statistics which are somehow embedded in a causal model can be legitimately called indicators (Carley 1981).

Within the array of possible types of social indicators, the NCHEMS higher-education indicators are designed as time-series statistics, disaggregated in appropriate ways, whose primary purpose is the improvement of social reporting especially with respect to social change. Direct policy evaluation has not been envisioned, in part because of the absence of an acceptable, comprehensive causal

model that would permit such evaluation. Several overlapping types of statistical data have been developed as part of the indicators project, including composite indices and statistical series that are interpreted within the context of models of human behavior such as human capital theory.

Present Objectives. The primary objectives of this monograph are as follows: one, to provide data on various aspects of the revenues flowing into colleges and universities during the mid and late 1970s--how much, to whom, from whom, relative to assets, and relative to activity level; and two, to determine the total amount of financial resources used for higher education, how the total has changed in recent years in absolute and relative terms, and who contributes what portion of the total.

The analytical framework, then, is twofold. On the one hand, higher-education financing is viewed from the institutional perspective; that is, the perspective of the organizations in which the products and services of higher education are produced. Formal higher education as we know it depends on a periodic flow of financial resources to those production-service centers, and on their accumulation of assets (some of which are measurable in financial terms). Both the revenue flow and the asset values change over time; and, typically, they are also a function of the activity level of the institutions. Because of the diversity of higher-education institutions, the analysis requires at least some disaggregation--by control and by institutional type at minimum. Once disaggregated, important issues such as market shares and variations among institutional types in their dependence upon single sources of revenue can be meaningfully addressed.

Higher-education financing can also be viewed from a rather different standpoint. The revenues and assets made available for higher education must come from somewhere; they must be provided by someone or some organization. So the second analytical-statistical task is to record and separate out the contributions made by government (three levels), by students and their families, by the colleges and universities themselves, and by private donors through voluntary support--in order to address the question, who pays for higher education?

That question cannot be answered apart from a decision as to what costs are to be included in the analysis. In this document, all economic costs, that is, all opportunity costs, have been included. Thus, foregone earnings, implicit rents, tax subsidies, and depreciation are considered along with actual outlays of funds for operational or capital purposes.

Structure. The body of the monograph is divided into ten segments, each dealing with a particular theme. The first four segments reflect the following institutional perspectives: current fund revenues, sources of revenue, fund balances, and unit revenues. The last six segments reflect the following investor-consumer dimensions: the federal government's share, the state and local government's share, voluntary support, the institutional share, the student and family share, and the total amount of resources going to higher education.

Each segment consists of: one, a brief overview of the concepts involved such as using a market shares approach in looking at the revenue flow; two, the specific data issues having to do with calculations or derivations that may need explaining, and with data problems (errors, omissions, and so on); three, highlights of the findings; and, four, a set of tables and figures which constitute the indicators themselves. The data presented range from pure data (for example, actual revenue figures) to highly derived data (for example, composite indices of dependence on a

single source of revenue). The tables and figures are meant to provide basic data, and to do so in a variety of meaningful contexts (for example, current versus constant dollars, total resources devoted to higher education as a proportion of GNP, and so on).

Data Issues. Specific data issues will be addressed in each segment. A few general comments are in order at the start.

Throughout the first four segments, the Higher Education General Information Surveys (HEGIS) are the primary data source. HEGIS data, especially those on finances, have come under considerable scrutiny. While the possibility of error in the values for any given institution must be acknowledged, most analysts would agree that in the aggregate the data can be used with some confidence. In most instances in the segments that follow, HEGIS data are used at a high level of aggregation. In a few cases, having to do with data on institutional types, there are relatively small numbers of institutions involved, and thus some greater risk of being misled by the data.

Apart from the above issues of data accuracy and reliability, it does appear that HEGIS data are generally appropriate for the purposes at hand. There are, of course, data of interest in the present context that are not reported in HEGIS, and thus not available on a national scale. Data on quasi-endowment, useful for assessing financial liquidity, is one example. More broadly, the treatment of student aid funds in HEGIS is quite inadequate from the perspective of tracking funds in a source-use mode. Nonetheless, HEGIS remains an indispensible source for national data on higher education. Without it, the first half of the analysis presented in the document--the financing perspective based on institutional accounts--would have been impossible.

No one data source was used throughout the second half of the analysis. Each segment, except the last which is essentially a summary and digest of segments five through nine, required the use of a different set of data resources. In addition, there were required data that did not exist at all, and thus had to be developed in order to achieve a complete account of higher-education financing; implicit rents fall in this category, as do foregone earnings and depreciation of physical capital. Various estimates that were developed elsewhere, for example, virtually all the data on voluntary support, were also used. In general, the data presented in segments five through ten are unlikely to be as accurate as the data in the earlier segments.

In segments one through four and seven through nine, the universe is clearly delineated--it consists of all institutions in the HEGIS universe. Essentially, that means all accredited colleges and universities plus institutions whose credits are recognized by accredited institutions (see one of the annual Education Directories published by the National Center for Education Statistics for full details). In the remaining segments--five, six, and ten--the universe is less clearly defined; the institutional connection (direct or indirect) which is operative in the other segments is missing. Instead, the focus is on governmental acccunts wherein the term "higher education" appears to have the meaning usually reserved for the term "postsecondary"; in other words, the universe of relevant educational experiences is broader than that which is connected to degree-granting institutions. (For an explicit statement to this effect, see the Census Bureau's Governmental Finances in 1979-80, p. 6.)

The HEGIS universe of institutions is disaggregated along two dimensions in this document. Sectors of institutions are formed on the basis of control: public, private, and proprietary. (Note that the private sector does not include

proprietary institutions in any of the data presented in this study.) Classes or types of institutions are delineated on the basis of degree offerings (level and breadth), research emphasis, and the presence or absence of a medical school; the typology follows a version of the NCHEMS classification system as modified for the study Financing in the Fifty States (McCoy and Halstead 1983).

Other Sources. Data on higher-education financing from the institutional perspective, and presented in an indicator-like fashion, can be found in The Condition of Education, an annual publication by NCES. NCES also publishes relevant statistical tables in its annual Digest of Education Statistics and in the periodic editions of Financial Statistics of Institutions of Higher Education. Using data primarily from NCES, the American Council on Education publishes an annual Fact Book containing, among other things, time-series data on higher-education financing. Emphasis in these sources is on current fund revenues and expenditures; they typically do not deal with the range of issues covered in the present analysis of the institutional perspective, nor do they disaggregate the universe of institutions in the manner done here.

The second edition of Financing in the Fifty States (McCoy and Halstead 1983) is now available. It contains a variety of state-level data complementary to material in segments one, two, and four of the present document in which all data are at the national level. The state financing study features trend data, data disaggregated by institutional type, and a wealth of contextual data (most notably with regard to tax capacity and tax effort) that help make more understandable the level of higher-education financing within a given state.

All of the above studies or statistical compendiums focus on the institutional perspective, and within that perspective, on current fund, or operating, revenues and expenditures. Occasionally, efforts are made to look at the consumer-investor

side of higher-education financing. Much of the literature is written from a policy analysis standpoint. Numerous books and articles have appeared on issues such as the proper level for tuition rates or the proper role of the federal government in higher education. This literature typically is not a particularly useful source of data about higher-education financing. There are exceptions, however, such as Financing Postsecondary Education in the United States (1977), The Federal Role in Postsecondary Education (1975), and more recent commentaries on the federal role by Finn (1978), Frances (1980), and Gladieux (1981). These documents contain both pertinent data and models for organizing and reporting data on higher-education financing at the federal level.

Then there are a few sources whose principal thrust is the provision of data, often in an indicator mode, that relate to aspects of the consumer-investor perspective. The annual publication, Voluntary Support, by the Council for Financial Aid to Education is one such source, as is the well known, annual compilation of data on state appropriations for higher education by M. M. Chambers. Although not directed specifically at higher-education issues, several government publications regularly contain data on higher-education financing. Chief among these, from a national perspective, are the budget documents of the U.S. Government and the series, Governmental Finances, prepared annually by the Bureau of the Census. The latter series is especially helpful for obtaining summary data on expenditures on higher education by local governments, and on government outlays for capital expenditures in higher education.

Two previous indicator series developed at NCHEMS also relate to the higher-education financing theme. The college-going cost study (Brown, Kahl, and Kriz 1981) is useful for aggregate data on tuition and fees. The student financing study (Leslie 1982) provides aggregate data, based on an analysis of results from

the National Longitudinal Study (NLS) of the High School Class of 1972 and the annual Cooperative Institutional Research Program (CIRP), on the amount of financial aid received by students and on costs of education-related items such as books and supplies. Data from the two indicator series are used in conjunction with one another in the present study to estimate a portion of the student-family share of higher-education financing.

Indirect costs have not been treated elsewhere as often as most categories of direct costs. Estimates of student foregone earnings are somewhat of an exception. They can be found in Schultz (1960), Blitz (1962), Becker (1964), Bowen (1969), Cohn (1977), and Crary and Leslie (1978), among others. The Crary and Leslie approach, with some modification, was used for the present study. Schultz (1960), Machlup (1962), and Cohn (1977, 1979) provide estimates of rates for implicit rents, depreciation, and tax exemptions. Cohn (1977; 1979, chapter 4) was particularly useful for both estimation rates and a conceptual overview of economic costs in a higher-education context, and as a source for estimates of the total cost of higher education.

The data in the present study cover the period from fiscal year 1973 through fiscal year 1980. The data are thus congruent in time with the data in the previous indicator series in the project. More important in the choice of timeframe was the need to have data that were congruent or compatible from the beginning to the end of the period analyzed. Pushing backward in time makes this goal ever harder to achieve, and in terms of the objectives of the indicators project, probably not worth the effort. That is, while indicator data must perforce be historical, they are intended to reflect the near rather than the more distant past in order to retain their relevance for current issues and circumstances. In any event, data from other sources are available for earlier

periods. Financial records obtained by the Office of Education go back to 1929 (see O'Neill 1971, 1973). In the Governmental Finances series mentioned earlier, governmental expenditures on higher education can be traced back to 1902 (Bureau of the Census, 1977). The general work, Colonial Times to 1970: Historical Statistics of the United States, also provides some data on higher-education revenues in the more distant past. Of special note are the education statistics put together by Harris (1972). In an extensive document, he provides a variety of data, on the institutional perspective and on aspects of the consumer-investor perspective, that are relevant to the themes in the present study. Also of special note is O'Neill's 1973 document, Sources of Funds to Colleges and Universities, which covers the period from FY1930 to FY1968. The data presented are drawn primarily from institutional accounts as compiled by the U.S. Office of Education; segment two of the present study contains data of a similar nature for FY1975 and FY1980.

Historical data on the total costs (direct plus indirect) of higher education can be found in Schultz (1960), Machlup (1962), Mushkin (1962), and Cohn (1977, 1979). Some of the data in these volumes extend back to the turn of the century, but most reflect events in the 1950s and 1960s.

No effort has been made in the material presented below to explicitly relate 1970s data to those of earlier periods. To have done so would have necessitated a considerable extension of this document. Nonetheless, the interested reader may find it worthwhile to extend the perspective on higher-education financing in this manner. If so, a word of warning is appropriate. "Cross-walking" between eras must be done carefully if it is not to result in misleading conclusions. The financing of higher education in this country is an evolving process--not only with respect to its magnitude and to those who bear the burden, but also with respect to

the ways in which we conceptualize and record the process. It is this latter dimension that requires considerable attention when developing an extended historical perspective.

Current Fund Revenues

Two basic issues are addressed in this segment: the total amount of revenue flowing into institutional accounts for current operations, and the manner in which that revenue is divided among major types of institutions. The total amount of such revenue raised by the nation's colleges and universities is far less than the total amount of financial resources devoted to higher education; nonetheless, when looked at over time or in the context of other economic variables, current fund revenues are an important measure of national support for higher education.

It is widely acknowledged that the universe of colleges and universities is comprised of distinctive types, or classes, of institutions, which taken together lend structure to the industry. The varying amounts of revenues flowing to the various institutional types may be taken as a measure of "market shares." Changes in market shares are indicative of changing needs and preferences for alternative versions of higher education. The NCHEMS institutional typology, which is used in this and in several other segments of this report, acknowledges primarily two institutional characteristics--level of instruction and curriculum diversity--in classifying institutions (see Appendix A for details). For present purposes, the presence or absence of a medical program (medicine, dentistry, osteopathy, or veterinary medicine) is used to further disaggregate the category "major doctoral institutions." In addition, other groupings that cut across the basic classification system are also spotlighted in recognition of several current social concerns. They include institutions that are predominantly black, church-affiliated, landgrant, for women only, or of a particular size.

Data Issues. The source for all data in this segment is the annual HEGIS finance survey, part A, Current Fund Revenues, for fiscal years 1973 through 1980. Although the survey form was recast significantly between fiscal years 1974 and 1975, the

effect on the data shown in this segment should be minimal because only bottom line, or total, figures are used. Unfortunately, another matter related to developments between 1973 and 1975 does cause a problem. In 1973, some of the institutional reporting to HEGIS was done at the system level rather than at the individual campus level. Because systems can include institutions of more than one type, the time-series data on institutional types must begin in 1975 instead of 1973.

It is important to note that none of the groups of institutions whose data are displayed in this or the following segments should be considered a panel, that is, a group that contains a constant membership over time. All of the groups of institutions, from the largest (all institutions) to the smallest (women's colleges) are fluid. New institutions open, old ones close, merge, or change in some other way that affects their group identification (for example, private to public, single sex to coeducational).

What the tables and figures that follow are meant to portray, then, is the manner in which a higher-education function, or alternatively, a particular approach to higher education, has been funded; public higher education, research universities, two-year institutions with an emphasis on occupational education, and so on, are examples of particular approaches. The number of institutions that happen to carry out a particular mission is not at issue. There is one instance, however, where the internal structure of a class of institutions is addressed: in table 1.5 where the concentration of revenues is displayed by class of institution. Concentration in this context refers simply to an aspect of the distribution of revenues among the institutions of a given type. Not surprisingly, the top 20 percent of institutions--as measured by their ability to attract revenue--always raise more than, and sometimes much more than, 20 percent of total revenues for their class. This structural dimension varies considerably by class, though, and over time as well.

Highlights. During the period from FY73 to FY80, the following changes took place in the revenues flowing through institutional accounts:

- current fund revenues
  - increased at public institutions by 107 percent in current dollars, 24 percent in constant dollars (HEPI)
  - increased at private institutions by 100 percent in current dollars, 20 percent in constant dollars (HEPI)
  - totaled $58 billion for all institutions in 1980, or 2.24 percent of the GNP compared to 2.17 percent in 1973

- market shares
  - remained fairly constant between sectors:
    - two-thirds of all current fund revenues went to public institutions
    - one-third of all current fund revenues went to private institutions
    - proprietary institutions increased their share, but still received only three-tenths of one percent of total current fund revenues in 1980

During the period from FY75 to FY80:

- market shares
  - changed more among the various types of public institutions than among the various types of private institutions
  - declined slightly for women's and church-affiliated colleges, but increased slightly for predominantly black institutions
  - increased for large institutions (FTE enrollment of 8000 or more)

- concentration of revenues
  - decreased in the public sector, as the concentration index went from .436 to .400

- increased in the private sector, as the concentration index went from .403 to .413

Table 1.1 Current Fund Revenues, by NCHEMS Institutional Class, FY1973-80 (Millions of Dollars)

Institutional Class	1973a	1975	1977	1979	1980	% Change FY73-FY80
Public	$18,926	$24,211	$29,452	$34,761	$39,075	106.5%
Research-Medical (R-M)		6,439	7,548	8,932	9,933	
Research-Nonmedical (R-NM)		1,449	1,910	2,126	2,521	
Doctoral-Medical (D-M)		1,193	1,761	2,059	2,481	
Doctoral-Nonmedical (D-NM)		2,359	2,827	3,394	3,675	
Comprehensive (C)		5,061	5,986	7,165	8,014	
Baccalaureate (B)		862	1,010	1,207	1,342	
Two-Year Acad. & Comp. (TYAC)		3,643	4,319	4,944	5,541	
Two-Year Occupational (TYO)		919	1,142	1,416	1,539	
Health Professional (HP)		1,547	2,225	2,701	3,093	
Other Specialized (OS)		738	725	816	934	
Private	9,833	11,681	14,175	17,261	19,634	99.7
Research-Medical		3,386	4,026	4,926	5,645	
Research-Nonmedical		790	1,020	1,159	1,380	
Doctoral-Medical		697	887	1,107	1,270	
Doctoral-Nonmedical		823	965	1,154	1,290	
Comprehensive		1,651	2,026	2,461	2,800	
Baccalaureate		2,619	3,130	3,736	4,234	
Two-Year Acad. & Comp.		186	219	272	314	
Two-Year Occupational		101	134	149	160	
Health Professional		642	748	997	1,192	
Other Specialized		785	1,018	1,301	1,348	
Proprietary	33	49	86	162	183	455
All Institutions	28,792	35,941	43,716	52,185	58,892	104.5%

Source: HEGIS

a In some instances in FY73, data were provided to NCES at a system level rather than at an individual campus level. Under such circumstances, disaggregation by institutional class is not workable.

Table 1.2 Changes in Current Fund Revenues and Market Shares, FY1975 to FY1980

Institutional Class	% Change 1975 to 1980 Current $s	% Change 1975 to 1980 Constant $s	Market Shares FY75	Market Shares FY80	Change in Market Share %
Public	61.4%	12.5%	67.4%	66.4%	-1.0%
R-M	54.3	7.6	17.9	16.9	- 1.0
R-NM	74.0	21.3	4.0	4.3	+ 0.3
D-M	108.0	45.0	3.3	4.2	+ 0.9
D-NM	55.8	8.6	6.6	6.2	- 0.4
C	58.3	10.4	14.1	13.6	- 0.5
B	55.7	8.6	2.4	2.3	- 0.1
TYAC	52.1	6.1	10.1	9.4	- 0.7
TYO	67.5	16.8	2.6	2.6	0.0
HP	99.9	39.4	4.3	5.3	+ 1.0
OS	26.6	-11.3	2.1	1.6	- 0.5
Private	68.1	17.2	32.5	33.3	+ 0.8
R-M	66.7	16.3	9.4	9.6	+ 0.2
R-NM	74.7	21.8	2.2	2.3	+ 0.1
D-M	82.2	27.1	1.9	2.2	+ 0.3
D-NM	56.7	9.3	2.3	2.2	- 0.1
C	69.6	18.3	4.6	4.8	+ 0.2
B	61.7	12.7	7.3	7.2	- 0.1
TYAC	68.1	17.7	0.5	0.5	0.0
TYO	58.4	10.5	0.3	0.3	0.0
HP	85.7	29.5	1.8	2.0	+ 0.2
OS	71.7	19.7	2.2	2.3	+ 0.1
Proprietary	273.5	160.4	0.1	0.3	+ 0.2
All Institutions	63.9%	14.3%	100.0%	100.0%	0.0%

Source: HEGIS; HEPI used for constant dollars

Table 1.3 Changes in Educational and General Revenues and Market Shares, FY1975 to FY1980

Institutional Class	% Change 1975 to 1980 Current $s	% Change 1975 to 1980 Constant $s	Market Shares FY75	Market Shares FY80	Change in Market Share %
Public	61.7%	12.8%	70.0%	69.1%	- 0.9
R-M	57.9	10.1	17.0	16.4	- 0.6
R-NM	74.0	21.4	4.3	4.6	+ 0.3
D-M	99.0	38.7	3.4	4.1	- 0.3
D-NM	60.7	12.0	6.7	6.6	- 0.1
C	57.6	9.9	15.1	14.5	- 0.6
B	56.1	8.9	2.6	2.4	- 0.2
TYC	53.2	6.8	11.9	11.1	- 0.8
TYO	69.7	18.3	3.0	3.1	+ 0.1
HS	93.4	34.9	3.8	4.4	+ 0.6
OS	32.2	-7.8	2.3	1.8	- 0.5
Private	68.2	17.3	29.8	30.6	+ 0.8
R-M	66.2	15.9	8.3	8.4	+ 0.1
R-NM	78.7	24.6	1.4	1.6	+ 0.2
D-M	70.9	19.1	1.7	1.8	+ 0.1
D-NM	57.8	10.1	2.3	2.3	0.0
C	70.2	18.7	4.7	4.8	+ 0.1
B	65.5	15.4	7.1	7.2	+ 0.1
TYC	73.2	20.8	0.5	0.5	0.0
TYO	66.2	15.9	0.3	0.3	0.0
HS	99.7	39.2	1.1	1.3	+ 0.2
OS	72.5	20.3	2.3	2.5	+ 0.2
Proprietary	257.4	149.2	0.2	0.4	+ 0.3
All Institutions	64.0%	14.3%	100.0%	100.0%	0.0

Source: HEGIS; HEPI used for constant dollars.

Table 1.4 Changes in Educational and General Revenues and Market Shares, Selected Institutional Types, FY1975 to FY1980

Type of Institution	FY75-FY80 Change in Current $s	FY75-FY80 Change in Constant $s	Market Share FY75	Market Share FY80	Change in Market Share %
Landgrant	63.7%	14.1%	17.41%	17.38%	-.03
Women's	44.1	0.5	1.16	1.02	-.14
Predominantly Black	67.0	16.2	3.19	3.24	+.05
Church Affiliated	60.7	12.1	8.61	8.44	-.17
Number of FTE Students					
Less than 500	15.0%	-19.8%	3.89%	2.73%	-1.16
500-1999	58.9	10.8	16.53	16.03	-.50
2000-7999	60.3	11.8	30.41	29.74	-.67
8000-17999	68.6	17.5	27.43	28.23	+.80
18000 or more	74.9	21.9	21.85	23.31	+1.46

Source: HEGIS; HEPI used for constant dollars.

Table 1.5 Concentration of Current Fund and Educational and General (E&G) Revenues in the Top Twenty Percent of Institutions,* FY1975 vs. FY1980

Institutional Class	Current Fund Revenue 1975	Current Fund Revenue 1980	Change in Concentration	E&G Revenue 1975	E&G Revenue 1980	Change in Concentration
Public						
R-M	35.6%	35.1%	-0.5	35.0%	34.6%	-0.4
R-NM	33.1	31.8	-1.3	33.1	31.2	-1.9
D-M	45.5	29.5	-16.0	46.0	27.3	-18.7
D-NM	31.7	30.9	-0.8	33.2	32.0	-1.2
C	43.4	41.6	-1.8	44.5	41.6	-2.9
B	40.9	39.8	-1.1	41.7	40.9	-0.8
TYC	55.6	51.3	-4.3	56.6	51.8	-4.8
TYO	56.8	55.0	-1.8	55.2	54.9	-0.3
HP	43.0	36.5	-6.5	39.9	37.7	-6.9
OS	72.1	63.4	-8.7	73.0	65.4	-7.6
Private						
R-M	33.1	34.8	+1.7	32.6	33.3	+0.7
R-NM	34.5	33.0	-1.5	36.9	36.3	-0.6
D-M	32.6	34.0	+1.4	29.1	33.5	+4.4
D-NM	42.3	41.5	-0.8	38.2	37.3	-0.9
C	46.2	45.9	-0.3	44.6	44.0	-0.6
B	42.9	43.4	+0.5	41.6	43.8	+2.2
TYC	46.9	49.1	+2.2	47.4	47.7	+0.3
TYO	59.3	49.8	-9.5	58.1	48.8	-9.3
HP	55.7	48.1	-7.6	42.3	46.5	+4.2
OS	62.3%	61.9%	-0.4	63.2%	62.7%	-0.5

Source: HEGIS

* That is, the total revenues raised by the twenty percent of the institutions that raise the most revenue in an institutional class as a percent of the total revenue raised by all institutions in a class.

Table 1.6 Concantration Index* for Educational and General Revenues, Public and Private Institutions, FY1975 and FY1980

	1975	1980
Public Institutions	.436	.400
Private Institutions	.403	.413

Source: HEGIS

* Index created by multiplying concentration value for each institutional class (educational and general revenues), as shown in table 1.5, by the corresponding market share for each institutional class, and then summing the products across the public and private sectors, respectively. Market share for a given class of institution is calculated by dividing the sum of educational and general revenues for all institutions in the class (within a sector) by the sum of educational and general revenues for all institutions in the sector. Note that in tables 1.2, 1.3, and 1.4, market shares are calculated on the basis of revenues for all institutions in all sectors.

Table 1.7 Institutional Revenues in Perspective

	1973	1975	1977	1979	1980
Educational & General Revenues as a Percent of GNP	1.74%	1.85%	1.80%	1.72%	1.78%
Current Fund Revenues as a Percent of GNP	2.17	2.32	2.28	2.16	2.24
Educational & General Revenues at Private Institutions as a Percent of Gross Private Domestic Investment	3.22	4.14	3.19	2.97	3.57
Educational & General Revenues at Public Institutions as a Percent of Total Government Purchases of Goods and Services	8.55	8.41	8.76	8.78	8.71
Educational and General Revenues as a Percent of the Total Cost of Higher Education [a]	.45	.43	.45	.46	.45
Ratio for Educational & General Revenues: Public to Private Institutions	2.12	2.35	2.33	2.30	2.26

a Using method B, table 10.7, for the estimation of total costs.

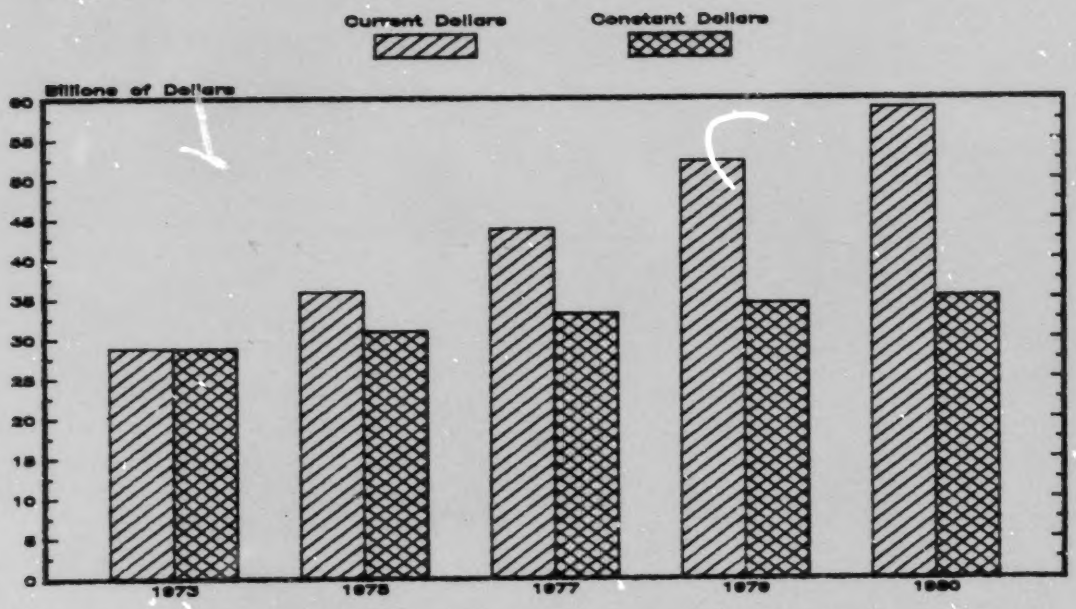

Fig. 1.1: Current Fund Revenues, All Institutions, FY 1973-80. [Source: HEGIS; HEPI used for constant dollars.]

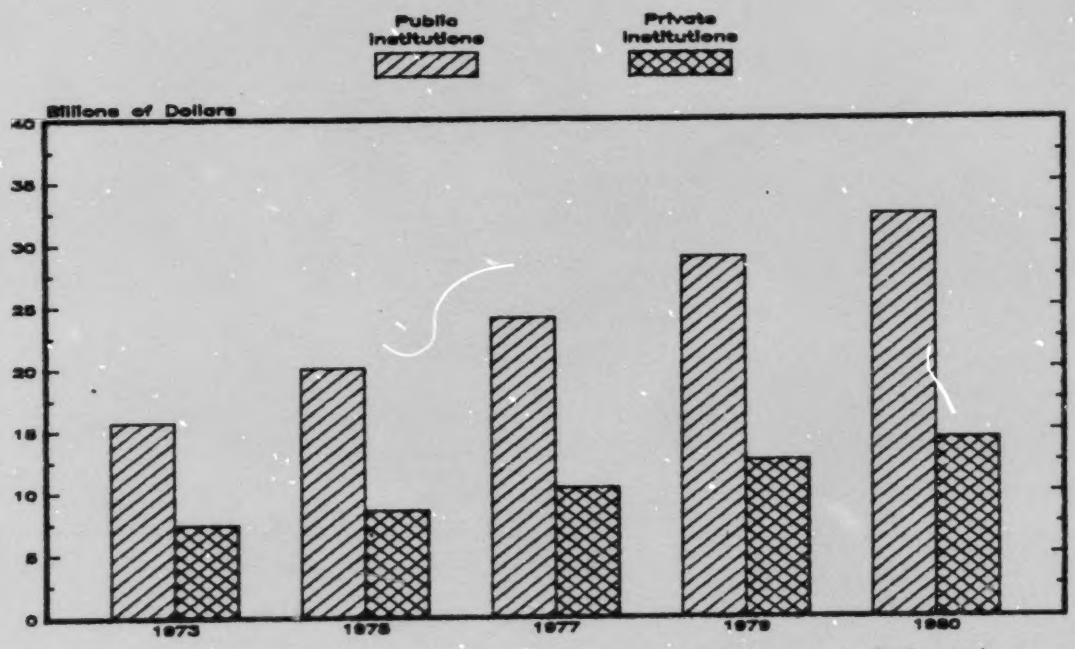

Fig. 1.2: Educational and General Revenues, Public vs. Private* Institutions, FY 1973-80. [Source: HEGIS.]

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Sources of Current Fund Revenues

Colleges and universities receive current fund revenues, the revenues used to support current operations, from various sources. This segment focuses on the amount of revenues from each of the sources included in the HEGIS reporting system. Of particular interest are shifts in the degree to which the various sources contribute to total revenue. Not only do the absolute amounts contributed by each source change, but they change in proportion to one another. Sometimes the latter change is merely a reflection of an arithmetic relationship--other things being equal, a drop in the amount of revenue from one source results in larger proportions of revenue coming from the remaining sources. In other situations, a change in proportions may reflect more substantive developments, as is the case, for example, when institutions raise their tuition rate to make up for a drop in revenues from state appropriations, private gifts, etc.

Revenue-source patterns also vary among types of institutions. Federal dollars for research, for example, flow in significant amounts to only a small percentage of all institutions. Tables 2.6 and 2.7 show how different the patterns are among institutional types, and how they changed during the latter half of the 1970s.

While each institutional type receives revenues from various sources, it is equally true that each type typically has one largest, often predominant, source of revenue. Some sort of balance is perhaps the most desirable situation, although it is far from obvious how one might determine the best split. Most would agree that excessive dependence on one source of revenue is usually not desirable. Most frequently mentioned as a matter of concern is the degree of dependence of some private institutions on revenue from tuition. Measures of dependence are provided in two tables. Table 2.4 shows the proportion of revenues coming from the largest single source for each institutional type. Table 2.5 contains indices of dependence for the

public and private sectors. The details of the procedure for creating the indices are provided in the footnote to table 2.5. In essence, the index is a composite expression, across institutional types, of the extent to which institutions in each sector are dependent upon a single source of revenue. The reader is reminded that averages (means) are being used throughout this segment, and that a particular institution within a class could be much less or much more dependent upon the same or some other single source of revenue than that which is predominant in its class.

Data Issues. Data in this segment are taken from the HEGIS finance surveys for fiscal years 1973-1980, Part A. Because of substantial changes in the survey form between FY74 and FY75, the base year for many of the tables in this segment is FY75.

The revenue sources as laid out in tables 2.1, 2.2, 2.3, 2.6, and 2.7 follow the HEGIS format exactly. The categories should be relatively self-explanatory, but HEGIS definitions are provided in Appendix B. Allen (1980) and Collier and Allen (1980) contain extended explanations of the revenue categories, as does College and University Business Administration (Walzenbach 1982) which is the basic reference document for financial accounting in higher education.

Note that the revenue category, tuition and fees, represents assessed tuition and fees (less refunds). Scholarships and fellowships are recorded on the expenditures side. Pell grant funds per se are not recorded as revenues, but are recorded instead as agency funds. Of course, students eventually use the grants to pay for tuition, room and board, etc., but the grant monies are not separately identified.

Highlights. During the period from FY75 to FY80, the following changes occurred in the distribution of current fund revenues by source:

- at public institutions
  - changes in shares of total revenue appear to be material
    - state appropriations rose from 42.7 percent to 44.9 percent
    - local appropriations declined from 5.2 percent to 3.4 percent
    - federal appropriations declined from 3.2 percent to 2.7 percent
    - sales and services of educational activities rose from 1.5 percent to 2.1 percent
    - sales and services of hospitals rose from 4.6 percent to 6.5 percent
  - dependence on a largest single source of revenue (state appropriations in almost all cases) rose 4.7 percent as measured by a composite index for various types of public institutions
  - dependence on a largest single source of revenue was highest among comprehensive, baccalaureate, health professional, and other specialized institutions

- at private institutions
  - changes in shares were generally very modest
    - tuition and fees rose slightly from 35.5 percent to 35.7 percent
    - unrestricted private gifts, grants, and contracts declined from 5.7 percent to 5.0 percent
    - endowment income declined slightly, from 5.2 percent to 5.0 percent
    - "other sources" (mostly short-term investments) rose from 3.1 percent to 3.9 percent
    - sales and services of auxiliary enterprises declined from 13.1 percent to 12.1 percent
    - sales and services of hospitals rose from 8.8 percent to 9.4 percent
  - dependence on a largest single source of revenue (tuition and fees in the majority of cases) rose only .7 percent, as measured by a composite index

for various types of private institutions, and remained lower than at public institutions

- dependence on a largest single source of revenue was highest among doctoral-nonmedical, comprehensive, baccalaureate, and two-year occupational institutions
  - at baccalaureate institutions, tuition as a percent of E&G revenues declined slightly, from 62.6 to 62.1 percent
  - at comprehensive institutions, tuition as a percent of E&G revenues declined slightly, from 68.8 percent to 67.5 percent

Table 2.1 Sources of Revenue, All Institutions, Fiscal Years 1975 and 1980 (Millions of Dollars)

Revenue Source	1975		1980		Change in Share
Tuition and Fees	$7,285	(20.3%)	$12,045	(20.5%)	-0.2
Federal Appropriations	906	(2.5)	1,241	(2.1)	-0.3
State Appropriations	10,482	(29.2)	17,780	(30.2)	+1.0
Local Appropriations	1,252	(3.5)	1,321	(2.2)	-1.3
Federal Grants & Contracts					
Unrestricted	548	(1.5)	966	(1.6)	+0.1
Restricted	3,571	(9.9)	5,605	(9.5)	-0.4
State Grants & Contracts					
Unrestricted	84	(0.2)	92	(0.2)	0.0
Restricted	422	(1.2)	688	(1.2)	0.0
Local Grants & Contracts					
Unrestricted	35	(0.1)	37	(0.1)	0.0
Restricted	161	(0.4)	236	(0.4)	0.0
Private Gifts, Grants and Contracts					
Unrestricted	708	(2.0)	1,084	(1.8)	-0.2
Restricted	1,039	(2.9)	1,726	(2.9)	0.0
Endowment Income					
Unrestricted	404	(1.1)	671	(1.1)	0.0
Restricted	314	(0.9)	506	(0.9)	0.0
Sales and Services of Educational Activities	556	(1.5)	1,242	(2.1)	+0.6
Other Sources	832	(2.3)	1,653	(2.8)	+0.5
Total E&G Revenues	28,600	(79.5)	46,895	(79.6)	+0.1
Sales and Services of Auxiliary Enterprises	4,108	(11.4)	6,493	(11.0)	-0.4
Sales and Services of Hospitals	2,151	(6.0)	4,373	(7.4)	+1.4
Independent Operations	1,082	(3.0)	1,131	(1.9)	-1.1
Total Current Fund Revenues	35,941	(100%)	58,892	(100%)	

Source: HEGIS

Table 2.2 Sources of Revenue, Public Institutions, Fiscal Years 1975 and 1980 (Millions of Dollars)

Revenue Source	1975		1980		Change in Share
Tuition and Fees	$3,088	(12.8%)	$4,874	(12.5%)	-0.3
Federal Appropriations	771	(3.2)	1,043	(2.7)	-0.5
State Appropriations	10,325	(42.7)	17,558	(44.9)	+2.2
Local Appropriations	1,249	(5.2)	1,317	(3.4)	-1.8
Federal Grants & Contracts					
Unrestricted	279	(1.2)	471	(1.2)	0.0
Restricted	2,282	(9.4)	3,530	(9.0)	-0.4
State Grants & Contracts					
Unrestricted	68	(0.3)	49	(0.1)	-0.2
Restricted	345	(1.4)	545	(1.4)	0.0
Local Grants & Contracts					
Unrestricted	26	(0.1)	18	(0.0)	-0.1
Restricted	84	(0.3)	109	(0.3)	0.0
Private Gifts, Grants and Contracts					
Unrestricted	47	(0.2)	106	(0.3)	+0.1
Restricted	511	(2.1)	875	(2.2)	+0.1
Endowment Income					
Unrestricted	51	(0.2)	99	(0.3)	+0.1
Restricted	56	(0.2)	94	(0.2)	0.0
Sales and Services of Educational Activities	374	(1.5)	821	(2.1)	+0.6
Other Sources	470	(1.9)	875	(2.2)	+0.3
Total E&G Revenues	20,027	(82.7)	32,384	(82.9)	+0.2
Sales and Services of Auxiliary Enterprises	2,574	(10.6)	4,095	(10.5)	-0.1
Sales and Services of Hospitals	1,122	(4.6)	2,535	(6.5)	+1.9
Independent Operations	487	(2.0)	61	(0.2)	-1.8
Total Current Fund Revenues	24,211	(100%)	39,075	(100%)	

Source: HEGIS

Table 2.3 Sources of Revenue, Private Institutions, Fiscal Years 1975 and 1980 (Millions of Dollars)

Revenue Source	1975		1980		Change in Share
Tuition and Fees	$4,152	(35.5%)	$7,018	(35.7%)	+0.2
Federal Appropriations	135	(1.2)	197	(1.0)	-0.2
State Appropriations	156	(1.3)	221	(1.1)	-0.2
Local Appropriations	3	(0.0)	4	(0.0)	0.0
Federal Grants & Contracts					
Unrestricted	269	(2.3)	495	(2.5)	+0.2
Restricted	1,289	(11.0)	2,073	(10.6)	-0.4
State Grants & Contracts					
Unrestricted	16	(0.1)	43	(0.2)	+0.1
Restricted	77	(0.7)	141	(0.7)	0.0
Local Grants & Contracts					
Unrestricted	9	(0.1)	19	(0.1)	0.0
Restricted	76	(0.7)	128	(0.7)	0.0
Private Gifts, Grants and Contracts					
Unrestricted	661	(5.7)	975	(5.0)	-0.7
Restricted	528	(4.5)	851	(4.3)	-0.2
Endowment Income					
Unrestricted	353	(3.0)	571	(2.9)	-0.1
Restricted	258	(2.2)	414	(2.1)	-0.1
Sales and Services of Educational Activities	192	(1.6)	418	(2.1)	+0.5
Other Sources	362	(3.1)	774	(3.9)	+0.8
Total E&G Revenues	8,526	(73.0)	14,342	(73.0)	0.0
Sales and Services of Auxiliary Enterprises	1,532	(13.1)	2,384	(12.1)	-1.0
Sales and Services of Hospitals	1,029	(8.8)	1,838	(9.4)	+0.6
Independent Operations	594	(5.1)	1,070	(5.4)	+0.3
Total Current Fund Revenues	11,681	(100%)	19,634	(100%)	

Source: HEGIS

Table 2.4 Largest Single Sources of Current Fund Revenue and Educational and General Revenue, by Type of Institution, FY75 and FY80

Institutional Class	Percent of Total Current Fund Revenue from Largest Single Source		Percent of Educational & General Revenues from Largest Single Source	
	FY75	FY80	FY75	FY80
Public				
R-M	35.4	37.1%	46.8	48.0%
R-NM	43.2	42.2	50.8	50.0
D-M	41.6	40.4	51.6	52.3
D-NM	47.1	48.3	58.1	52.7
C	52.6	54.8	61.7	64.6
B	50.0	50.8	58.9	59.7
TYAC	41.5	50.0	44.5	53.1
TYO	45.6	48.4	49.1	51.8
HP	38.7	39.8	55.6	59.1
OS	41.6	54.0	46.0	57.2
Private				
R-M	20.8	21.3	29.5	30.6
R-NM	41.3	41.1	29.2	29.9
D-M	28.7	27.9	41.3	42.8
D-NM	49.8	50.9	61.1	62.0
C	55.5	54.6	68.8	67.5
B	48.6	49.2	62.6	62.1
TYAC	42.3	45.2	55.6	57.7
TYO	64.2	67.0	78.3	77.5
HP	49.1	43.4	28.8	24.0
OS	46.4	50.2	54.3	58.6

Source: HEGIS

Table 2.5 Educational and General Revenue Single-Source Dependence Index* for Public and Private Institutions, FY75 and FY80

	FY75	FY80	Percent Change FY75 to FY80
Public Institutions	521.5	545.8	4.7%
Private Institutions	494.7	498.0	.7

* Single Source Dependence Index (SSDI) for a sector is calculated as follows:

$$SSDI = \sum_{i=1}^{10} [(R_i / \sum_{i=1}^{10} R_i) \times S_i]/10$$

where RI is revenue for the Ith institutional class (for example, research-medical) in a sector (for example, public), SRI is total revenue for the sector, and SI is the percent of revenue coming from the largest single source for the Ith institutional class. In other words, the index expresses an average for a sector, across ten classes of institutions, of dependence upon a single source of revenue weighted by each institutional type's market share of the revenue in question; table 2.5 shows the index calculated for educational and general revenues. Other things being equal, the index value for a sector increases if the dependence on the largest single source of revenue increases for any institutional class in the sector, or if the market share of total revenue increases for any institutional class whose dependence on a largest single source of revenue is above the mean level of dependence for the sector.

Table 2.6 Sources of Current Fund Revenues by Type of Public Institution, FY75 and FY80 (Percent of Total)

Revenue Source	Research-Medical FY75	Research-Medical FY80	Research-Nonmedical FY75	Research-Nonmedical FY80
Tuition and Fees	10.1%	9.8%	13.2%	13.2%
Federal Appropriations	2.0	1.8	5.7	3.4
State Appropriations	35.4	37.1	43.2	42.2
Local Appropriations	0.1	.3	.3	.2
Federal Grants & Contracts				
Unrestricted	2.4	2.5	1.5	2.1
Restricted	14.6	13.3	10.9	11.9
State Grants & Contracts				
Unrestricted	<.05	.1	.2	.1
Restricted	1.2	1.2	1.6	1.6
Local Grants & Contracts				
Unrestricted	<.05	<.05	<.05	<.05
Restricted	.2	.3	.3	.5
Private Gifts, Grants and Contracts				
Unrestricted	.3	.3	.3	.4
Restricted	3.6	3.9	2.8	3.5
Endowment Income				
Unrestricted	.2	.2	.8	1.6
Restricted	.5	.5	.3	.3
Sales and Services of Educational Activities	3.0	4.2	1.4	2.1
Other Sources	1.8	2.1	2.5	2.0
Total E&G Revenues	75.6	77.4	85.1	85.1
Sales & Services of Auxiliary Enterprises	10.3	10.0	13.4	14.2
Sales and Services of Hospitals	8.8	12.2	0.0	0.0
Independent Operations	5.2	.3	1.5	.7
Total Current Fund Revenues	100.0%	100.0%	100.0%	100.0%

Table 2.6 (continued)

Revenue Source	Doctoral-Medical FY75	Doctoral-Medical FY80	Doctoral-Nonmedical FY75	Doctoral-Nonmedical FY80
Tuition and Fees	14.3%	14.2%	17.1%	16.0%
Federal Appropriations	2.0	1.6	1.5	1.1
State Appropriations	41.6	40.4	47.1	48.3
Local Appropriations	<.05	.1	.1	.1
Federal Grants & Contracts				
Unrestricted	1.2	1.2	.5	.9
Restricted	10.6	8.6	7.2	8.6
State Grants & Contracts				
Unrestricted	.1	.1	.1	.1
Restricted	1.0	1.7	1.6	1.3
Local Grants & Contracts				
Unrestricted	<.05	<.05	<.05	<.05
Restricted	.2	.3	.2	.1
Private Gifts, Grants, and Contracts				
Unrestricted	.2	1.0	.2	.2
Restricted	3.5	2.7	2.0	2.2
Endowment Income				
Unrestricted	.4	.2	.4	.4
Restricted	.2	.2	.3	.3
Sales and Services of Educational Activities	2.7	2.7	.8	1.5
Other Sources	2.8	2.4	2.1	2.5
Total E&G Revenues	80.8	77.3	81.1	83.7
Sales and Services of Auxiliary Enterprises	11.7	11.2	17.3	16.3
Sales and Services of Hospitals	6.2	11.4	.1	0.0
Independent Operations	1.3	.1	1.5	0.0
Total Current Fund Revenues	100.0%	100.0%	100.0%	100.0%

Table 2.6 (continued)

Revenue Source	Comprehensive Research-Medical FY75	Comprehensive Research-Medical FY80	Baccalaureate Research-Nonmedical FY75	Baccalaureate Research-Nonmedical FY80
Tuition and Fees	16.0%	15.1%	18.0%	18.0%
Federal Appropriations	1.4	1.1	.7	.8
State Appropriations	52.6	54.8	50.0	50.8
Local Appropriations	3.4	1.4	1.7	1.0
Federal Grants & Contracts				
Unrestricted	.4	.4	.3	.5
Restricted	5.8	6.2	8.9	8.4
State Grants & Contracts				
Unrestricted	.1	.1	.0	.2
Restricted	1.5	1.3	1.1	1.2
Local Grants & Contracts				
Unrestricted	<.05	.1	<.05	<.05
Restricted	.3	.2	.2	.2
Private Gifts, Grants and Contracts				
Unrestricted	.1	.1	.2	.1
Restricted	1.0	1.2	1.8	1.0
Endowment Income				
Unrestricted	.1	<.05	.2	.1
Restricted	.1	.1	.1	.1
Sales and Services of Educational Activities	1.0	1.0	.8	.9
Other Sources	1.7	1.8	1.8	1.8
Total E&G Revenues	85.3	84.8	84.9	85.2
Sales and Services of Auxiliary Enterprises	13.5	13.8	14.8	14.8
Sales and Services of Hospitals	1.0	1.3	.0	.0
Independent Operations	.2	.1	.2	.0
Total Current Fund Revenues	100.0%	100.0%	100.0%	100.0%

Table 2.6 (continued)

Revenue Source	Two-Year Academic and Comprehensive FY75	Two-Year Academic and Comprehensive FY80	Two-Year Occupational FY75	Two-Year Occupational FY80
Tuition and Fees	13.3%	14.2%	14.5%	16.1%
Federal Appropriations	2.3	1.3	2.4	1.2
State Appropriations	41.5	50.0	45.6	48.4
Local Appropriations	23.4	16.6	17.5	15.1
Federal Grants & Contracts				
Unrestricted	.4	.1	.5	.3
Restricted	5.1	5.3	6.2	6.1
State Grants & Contracts				
Unrestricted	1.2	.3	.9	.5
Restricted	1.7	1.8	2.3	1.5
Local Grants & Contracts				
Unrestricted	.5	.1	.4	<.05
Restricted	.7	.3	.2	.3
Private Gifts, Grants and Contracts				
Unrestricted	.1	.1	.1	<.05
Restricted	.5	.3	.4	.5
Endowment Income				
Unrestricted	<.05	.1	.1	.1
Restricted	<.05	<.05	.1	<.05
Sales and Services of Educational Activities	.4	.4	.7	.8
Other Sources	2.1	3.3	1.7	2.5
Total E&G Revenues	93.3	94.0	92.9	93.4
Sales and Services of Auxiliary Enterprises	5.4	6.0	6.9	6.6
Sales and Services of Hospitals	1.2	.0	.0	.0
Independent Operations	.1	.0	.2	.0
Total Current Fund Revenues	100.0%	100.0%	100.0%	100.0%

Table 2.6 (continued)

Revenue Source	Health Professional FY75	Health Professional FY80	Other Specialized FY75	Other Specialized FY80
Tuition and Fees	2.3%	2.3%	7.7%	7.8%
Federal Appropriations	.7	.3	41.6	54.0
State Appropriations	38.7	39.8	25.2	22.7
Local Appropriations	.2	.0	4.1	.6
Federal Grants & Contracts				
Unrestricted	1.9	1.7	.4	.3
Restricted	14.9	10.9	6.0	5.0
State Grants & Contracts				
Unrestricted	<.05	.1	<.05	<.05
Restricted	1.5	1.7	.5	.4
Local Grants & Contracts				
Unrestricted	<.05	<.05	<.0	<.05
Restricted	.9	.6	.2	<.05
Private Gifts, Grants and Contracts				
Unrestricted	.2	.6	.2	.1
Restricted	3.7	3.5	1.6	1.3
Endowment Income				
Unrestricted	.3	.1	.5	.1
Restricted	.3	.2	.1	.1
Sales and Services of Educational Activities	2.0	3.4	.5	.6
Other Sources	2.0	2.2	1.7	1.5
Total E&G Revenues	69.6	67.3	90.5	94.5
Sales and Services of Auxiliary Enterprises	2.4	2.6	7.9	5.1
Sales and Services of Hospitals	24.1	30.0	1.4	.3
Independent Operations	3.9	.1	.3	.0
Total Current Fund Revenues	100.0%	100.0%	100.0%	100.0%

Table 2.7 Sources of Current Fund Revenues by Type of Private Institution, FY75 and FY80 (Percent of Total)

Revenue Source	Research-Medical FY75	Research-Medical FY80	Research-Nonmedical FY75	Research-Nonmedical FY80
Tuition and Fees	20.8%	21.3%	13.6%	13.1%
Federal Appropriations	.3	.1	<.05	.0
State Appropriations	1.4	1.0	.4	.2
Local Appropriations	<.05	<.05	.0	.0
Federal Grants & Contracts				
Unrestricted	4.5	5.0	5.5	5.2
Restricted	19.7	17.1	15.3	16.0
State Grants & Contracts				
Unrestricted	.1	.1	<.05	.0
Restricted	.7	1.0	.2	.1
Local Grants & Contracts				
Unrestricted	.2	.2	<.05	.0
Restricted	1.2	1.1	<.05	.0
Private Gifts, Grants and Contracts				
Unrestricted	1.9	1.4	3.1	3.1
Restricted	7.5	7.0	5.6	7.1
Endowment Income				
Unrestricted	3.1	2.5	2.7	3.6
Restricted	3.8	3.5	4.2	2.9
Sales and Services of Educational Activities	3.1	4.6	.2	<.05
Other Sources	2.5	3.7	1.5	2.2
Total E&G Revenues	70.4	69.6	52.4	53.6
Sales and Services of Auxiliary Enterprises	7.6	7.1	6.2	5.3
Sales and Services of Hospitals	14.8	15.1	.0	.0
Independent Operations	7.2	8.2	41.3	41.1
Total Current Fund Revenues	100.0%	100.0%	100.0%	100.0%

Table 2.7 (continued)

Revenue Source	Doctoral-Medical FY75	Doctoral-Medical FY80	Doctoral-Nonmedical FY75	Doctoral-Nonmedical FY80
Tuition and Fees	28.7%	27.9%	49.8%	50.9%
Federal Appropriations	8.1	9.1	.1	.0
State Appropriations	.9	.6	1.2	.9
Local Appropriations	.0	.0	.0	.0
Federal Grants & Contracts				
Unrestricted	2.1	1.8	1.7	2.2
Restricted	12.3	8.9	8.5	8.4
State Grants & Contracts				
Unrestricted	<.05	.1	.1	.2
Restricted	.5	.4	.6	.7
Local Grants & Contracts				
Unrestricted	<.05	<.05	<.05	<.05
Restricted	.1	.1	.1	.1
Private Gifts, Grants and Contracts				
Unrestricted	2.8	2.5	6.5	5.3
Restricted	3.7	3.3	3.6	3.6
Endowment Income				
Unrestricted	2.1	2.1	3.6	3.6
Restricted	1.3	1.1	1.7	1.7
Sales and Services of Educational Activities	3.6	4.5	.9	.9
Other Sources	3.2	2.6	3.3	3.7
Total E&G Revenues	69.4	65.5	81.5	82.0
Sales and Services of Auxiliary Enterprises	8.6	7.5	18.5	17.9
Sales and Services of Hospitals	22.0	27.0	.0	.0
Independont Operations	.0	.3	<.05	.0
Total Current Fund Revenues	100.0%	100.0%	100.0%	100.0%

Table 2.7 (continued)

Revenue Source	Comprehensive FY75	Comprehensive FY80	Baccalaureate FY75	Baccalaureate FY80
Tuition and Fees	55.5%	54.6%	48.6%	49.2%
Federal Appropriations	.6	.2	1.6	1.2
State Appropriations	1.6	1.3	.7	.6
Local Appropriations	<.05	.0	<.05	<.05
Federal Grants & Contracts				
Unrestricted	.5	.9	.4	.4
Restricted	5.1	6.7	4.5	6.0
State Grants & Contracts				
Unrestricted	.2	.3	.2	.3
Restricted	.9	.7	.7	.7
Local Grants & Contracts				
Unrestricted	<.05	<.05	<.05	<.05
Restricted	.1	.1	<.05	<.05
Private Gifts, Grants and Contracts				
Unrestricted	4.6	4.4	10.0	9.0
Restricted	3.2	2.5	2.5	2.3
Endowment Income				
Unrestricted	3.1	3.1	3.4	3.6
Restricted	1.0	1.2	1.6	1.8
Sales and Services of Educational Activities	1.0	1.4	.5	.5
Other Sources	3.4	3.7	3.0	3.6
Total E&G Revenues	80.7	81.0	77.6	79.3
Sales and Services of Auxiliary Enterprises	15.4	14.9	21.9	20.6
Sales and Services of Hospitals	3.4	4.1	<.05	<.05
Independent Operations	.4	<.05	.4	<.05
Total Current Fund Revenues	100.0%	100.0%	100.0%	100.0%

Table 2.7 (continued)

Revenue Source	Two-Year Academic and Comprehensive FY75	Two-Year Academic and Comprehensive FY80	Two-Year Occupational FY75	Two-Year Occupational FY80
Tuition and Fees	42.3%	45.2%	64.2%	67.0%
Federal Appropriations	1.1	.8	.6	1.3
State Appropriations	1.8	1.8	.4	.3
Local Appropriations	.9	.7	.0	.0
Federal Grants & Contracts				
Unrestricted	.6	.5	.6	.7
Restricted	6.2	5.6	5.0	5.1
State Grants & Contracts				
Unrestricted	.1	.3	.1	.6
Restricted	.8	1.0	.5	.7
Local Grants & Contracts				
Unrestricted	.0	.2	.0	.0
Restricted	.1	.5	<.05	.0
Private Gifts, Grants and Contracts				
Unrestricted	14.6	13.7	4.1	2.9
Restricted	2.0	1.9	1.1	.6
Endowment Income				
Unrestricted	1.7	1.9	1.4	1.0
Restricted	.5	.6	.2	.1
Sales and Services of Educational Activities	.4	.6	.8	1.8
Other Sources	3.2	3.3	3.1	3.9
Total E&G Revenues	76.3	78.3	82.2	80.0
Sales and Services of Auxiliary Enterprises	23.2	21.6	17.9	13.9
Sales and Services of Hospitals	<.05	.0	.0	.0
Independent Opeations	.7	.0	<.05	.0
Total Current Fund Revenues	100.0%	100.0%	100.0%	100.0%

Table 2.7 (continued)

Revenue Source	Health Professional FY75	Health Professional FY80	Other Specialized FY75	Other Specialized FY80
Tuition and Fees	4.9%	6.9%	46.4%	50.2%
Federal Appropriations	1.5	.8	.5	.5
State Appropriations	5.0	4.9	1.3	1.0
Local Appropriations	.0	.1	.1	<.05
Federal Grants & Contracts				
Unrestricted	2.5	2.8	1.3	.8
Restricted	13.9	12.5	4.8	3.7
State Grants & Contracts				
Unrestricted	.4	.2	.2	.5
Restricted	1.1	.8	.4	.3
Local Grants & Contracts				
Unrestricted	.3	.4	.1	.1
Restricted	4.3	4.6	.6	.1
Private Gifts, Grants and Contracts				
Unrestricted	1.8	1.0	15.1	14.1
Restricted	3.5	4.5	4.0	3.5
Endowment Income				
Unrestricted	.8	.8	4.5	3.8
Restricted	.4	.5	1.4	1.7
Sales and Services of Educational Activities	1.1	1.0	1.0	1.2
Other Sources	6.8	10.1	3.6	4.3
Total E&G Revenues	48.1	51.8	85.4	85.5
Sales and Services of Auxiliary Enterprises	2.0	1.7	14.1	13.8
Sales and Services of Hospitals	49.1	43.4	.4	.5
Independent Opens	.7	3.1	.2	<.05
Total Current Fund Revenues	100.0%	100.0%	100.0%	100.0%

Fund Balances

In previous segments, the focus has been on the flow of funds for current operations: the amount of these funds and their sources. Here the focus shifts to what might loosely be called the accumulation of wealth in higher-education institutions. As will be discussed further below, the national data base for this material does not permit us to attain a complete view of institutional balance sheets. But what is available in the form of data on changes in fund balances does provide for a few indicators of the asset structure of higher education.

It is clearly not the primary function of colleges and universities to accumulate assets. Yet, it seems apparent that the accumulation and maintenance of assets is necessary if higher education is to sustain itself over the long run. This is perhaps more obvious for private institutions than for their publically supported counterparts. Still, while the taxing power of the state is the ultimate guarantor for the financing of public institutions, there is no guarantee that it will be used to the extent desirable at a given time. Furthermore, from a practical point of view, few states would have the wherewithal to quickly recreate anything like the current level of physical assets in public institutions. Thus, the gradual increments or decrements in the assets of public higher education bears monitoring along with the corresponding developments in the private sector.

Data Issues. Data for this segment is taken from the HEGIS finance surveys, Part F, Statement of Changes in Fund Balances. As in previous segments based on institutional accounts, reporting errors by, or inconsistencies among, individual institutions can be expected. In the aggregate, however, there is no reason to believe a priori that the data will be substantively misleading.

In accord with the precepts of fund accounting, the financial activity of colleges and universities is recorded as flows of monies into and out of a series of funds. The HEGIS finance survey captures data on the activity in five major fund groups: Current, Loan, Endowment, Annuity and Life Income, and Plant. The Current Fund includes all resources used, or available for use, in carrying out the current operations of the institution. These funds are used for paying the salaries of faculty and staff, buying library books, and operating power plants, dormitories, and the like. Loan Funds are resources that are either restricted to, or available for, loans to students, faculty, or staff. Endowment Funds are resources that are invested with the intention of maintaining the principal intact while making earnings available for institutional use. The group includes endowment, term endowment, and quasi-endowments (funds functioning as endowments). Annuity and Life Income Funds are all funds carrying a stipulation that the institution make payments to one or more specified beneficiaries. Plant Funds are all of the institutions' physical plant assets as well as resources set aside for new construction or acquisitions, debt service on plant, and renewal and replacement of institutional properties. (These brief descriptions were taken from Allen 1980. For full descriptions of these fund groups, see Collier and Allen, 1980, Chapter 1.)

The one fund group found in most higher-education institutions but not included in HEGIS is the Agency Fund group. These funds contain the monies (for example, Pell grants) that the institutions handle for other organizations; as such, they have little or no bearing on the institution's financial status. (See Walzenbach, 1982, for a complete chart of accounts.)

End-of-year fund group balances are shown in table 3.1 below. Essentially, the larger the positive balances the better, so far as financial well being is concerned. A fund group balance is the result of the previous year's balance plus a year's worth

of financial activity including the following changes to the fund accounts: 1) additions, or all monies added to a fund group (for the Current Fund, additions include all restricted and unrestricted funds received by the institution during the fiscal year, while revenues--as shown in segment one above--include all unrestricted funds received but only those restricted funds expended during the fiscal year); 2) deductions, or all monies flowing out of the fund group that leave the institution during the fiscal year (for example, current fund expenditures, loan cancellations, expenditures for plant facilities); and 3) transfers, or monies that are moved from one fund group to another during the fiscal year and are not intended to be repaid--as opposed to loans that are intended to be repaid.

The end-of-year fund group balance, then, includes all resources assigned to each of the fund groups at the end of the fiscal year after the additions, deductions, and transfers have taken place. "Fund balances include assets (cash, investments, pledges receivable, accounts receivable, notes receivable, inventories, prepaid expenses, and deferred charges; institutional plant, interfund borrowing due from other funds) net of liabilities (accounts payable and accrued liabilities; notes, bonds, and mortgages payable; deposits; deferred revenues; contracts payable; interfund borrowing due to other funds)" (Allen 1980, p. 28).

When interpreting the data shown below, it may be useful to keep several things in mind. First, in some respects, the total balance over all five fund groups, as shown in table 3.1, is a better indicator of financial status than is the balance in any one group. This is the case because of the transfers that can be made between groups. For example, a private institution that happens to have a large end-of-year surplus in the Current Fund might choose to transfer some or all of the surplus to the Endowment Fund, leaving the Current Fund with a balance whose change, if any, from the

previous end-of-year balance will disguise the existence of a strong financial performance.

Second, it is possible to assess how well various classes of institutions have been able to cover their expenditures for current operations. Additions to the Current Fund less deductions and mandatory transfers results in what will be referred to here as a surplus or deficit. Note that these terms are not the equivalent of an increase or decrease in the Current Fund balance. Non-mandatory transfers, or discretionary transfers, can and often do occur, thereby altering the fund balances. Surpluses (deficits) in the sense meant here are shown in table 3.2. Table 3.3 displays a current operations index which constitutes an indicator of how well, in a composite sense, the institutional classes within a sector are able to meet their financial requirements for current operations.

Third, a change in a fund balance occurs through the net of additions and deductions and the net of transfers in and out of the fund. In the case of the Endowment Fund, the net transfers show the extent to which, if at all, institutions have been able to add to their endowment through monies from other funds, as opposed, for example, to contributions to endowment from private donors. (Some portion, presumably small, of transfers into endowment could be payments on loans from the quasi-endowment fund.) Of course, the transfer approach to the building of endowment is most suitable to the private sector, and also more vital. Table 3.4 shows net transfers in or out of the Endowment Fund as a percent of the previous year's ending balance.

Finally, as is true throughout these segments based on institutional accounts, the data are highly aggregated even when presented by institutional type. Thus, it should be remembered that the strong or weak performance of a group of roughly similar

institutions is in no way an indicator of the performance of a particular institution within the group.

Highlights. During the period from FY75 to FY80, the following changes took place (HEPI used to convert current to constant dollars):

- At public institutions
  - the combined balances across the five major fund groups increased 53 percent in current dollars, 6.3 percent in constant dollars
  - the Plant Fund balance increased 49 percent in current dollars to a total of $56.8 billion, a 4.0 percent increase in constant dollars
  - the Current Fund balance increased 110 percent in current dollars, 46 percent in constant dollars
  - the positive margin between requirements and resources for current operations became slightly more favorable, as measured by a composite index for various institutional types
  - the ratio of "assets" (sum of five fund group balances) to Current Fund expenditures declined slightly, from 1.88 to 1.78.
- At private institutions
  - the combined balance across the five major fund groups increased 42 percent in current dollars, a 9.12 percent decrease in constant dollars
  - the Plant Fund balance increased 35 percent in current dollars to a total of $22.7 billion, a 6.2 percent decrease in constant dollars

- the Current Fund balance increased 100 percent in current dollars, 39 percent in constant dollars

- the positive margin between requirements and resources for current operations became substantially more favorable, as measured by a composite index for various institutional types

- the ratio of "assets" (sum of five fund group balances) to Current Fund expenditures declined from 2.66 to 2.28

- the Endowment Fund balance increased 43 percent in current dollars to a total of $15.3 billion--virtually no change at all in constant dollar terms

- the sum of the Endowment Fund balance plus the Current Fund balance remained roughly equivalent to annual Current Fund expenditures, although the ratio declined slightly (from 1.04 to .94).

- At proprietary institutions

  - the combined balance across the five major fund groups increased dramatically in percentage terms (419 percent in current dollars), but the combined balance remained a very small proportion (about two-tenths of one percent) of the total for all higher-education institutions.

Table 3.1 End-of-Year Fund Group Balances, by Sector, FY1975-80 (Millions of Dollars)

Fund Groups	1975	1977	1979	1980	% Change FY1975-80 Current $s
Public Institutions, All Five Funds	$44,461	$52,818	$62,384	$67,808	53%
Current	2,504	3,327	4,347	5,255	110
Loan	1,274	1,697	1,952	2,053	61
Endowment	2,620	2,660	3,371	3,641	39
Annuity	25	35	52	36	44
Plant	38,088	45,099	52,662	56,823	49
Private Institutions, All Five Funds	30,780	34,752	39,388	43,611	42
Current	1,365	1,878	2,430	2,726	100
Loan	1,365	1,624	1,851	1,985	45
Endowment	10,685	11,947	13,413	15,315	43
Annuity	467	569	681	843	81
Plant	16,898	18,734	21,013	22,742	35
Proprietary Institutions, All Five Funds	43	74	219	223	419
Current	7	24	49	63	800
Loan	0	<0.5	<0.5	0	0
Endowment	<0.5	<0.5	12	12	3900
Annuity	0	0	<0.5	0	0
Plant	36	50	158	147	308
All Institutions, All Five Funds	75,284	87,644	101,991	111,642	48
Current	3,876	5,229	6,826	8,044	108
Loan	2,639	3,321	3,803	4,038	53
Endowment	13,305	14,607	16,796	18,969	43
Annuity	492	604	733	879	79
Plant	$55,022	$63,883	$73,833	$79,712	45%

Table 3.2 Current Fund Surplus (Deficit)*, by Institutional Type, FY1975 and FY1980 (Millions of Dollars and Percents)

Institutional Class	1975 Surplus (Deficit)	1975 % of Current Fund Expenditures	1980 Surplus (Deficit)	1980 % of Current Fund Expenditures
Public	$ 6	0.03%	$323	.85%
R-M	48	.76	259	2.69
R-NM	(7)	(.49)	55	2.24
D-M	16	1.36	37	1.52
D-NM	(33)	(1.41)	(9)	(0.25)
C	(118)	(2.37)	(144)	(1.84)
B	(5)	(.59)	(3)	(0.23)
TYAC	52	1.49	51	.95
TYO	(3)	(.34)	(22)	(1.47)
HP	42	2.82	108	3.65
OS	15	2.06	(9)	(0.98)
Private	149	1.29	836	4.38
R-M	90	2.67	315	5.70
R-NM	(3)	(.38)	75	5.63
D-M	13	1.90	73	5.92
D-NM	13	1.60	49	3.88
C	8	.49	96	3.55
B	(10)	(.38)	130	3.17
TYAC	(3)	(1.61)	3	.97
TYO	1	1.01	6	4.03
HP	39	6.41	66	5.67
OS	1	.13	23	1.76
Proprietary	3	6.38	13	7.78
All Institutions	$158	0.45%	$1,172	2.05%

* Surplus (deficit) is calculated by subtracting deductions and mandatory transfers from additions to the Current Fund.

Table 3.3 Current Operations Index*, by Sector, FY1975 and FY1980

	1975	1980
Public Institutions	.098	.974
Private Institutions	1.473	4.377

* Annual index value generated as follows: for each institutional type, deductions and mandatory transfers are subtracted from additions to the Current Fund to obtain the surplus (deficit); the surplus (deficit) is divided by Current Fund expenditures to obtain the operating ratio; the operating ratio is multiplied by the market share (current fund revenues divided by total current fund revenues for the sector); the products in a sector are summed to get the index value for the sector. The higher the index value the better in terms of the institutional ability to meet the financial requirements for current operations. All data are taken or derived from HEGIS.

Table 3.4 Net Transfers Into (Out of) the Endowment Fund Group as a Percent of the Previous Year's Ending Balance, by Institutional Type, FY1975-80

Institutional Class	1975	1977	1979	1980
Public	0.73%	(0.03)%	0.34%	0.53%
R-M	.71	(0.08)	.72	1.06
R-NM	.12	.18	.11	.23
D-M	2.78	3.32	.54	1.02
D-NM	2.32	.04	.40	1.45
C	.26	1.45	(.30)	(1.88)
B	(.38)	3.56	.00	.90
TYAC	.59	.00	.45	(.61)
TYO	.66	.00	.00	(1.81)
HP	.46	.38	(.73)	.78
OS	.23	.88	(.93)	(3.36)
Private	(0.54)	0.44	1.19	2.07
R-M	(.59)	<.01	1.58	2.88
R-NM	(.69)	2.34	1.73	1.18
D-M	(1.81)	1.91	1.68	3.30
D-NM	.42	1.49	1.06	2.63
C	(.29)	.08	1.21	2.29
B	(.51)	.23	.69	1.34
TYAC	.54	4.21	1.61	0.0
TYO	(1.59)	2.72	7.11	(.47)
HP	2.01	(1.99)	(2.34)	1.49
OS	(1.08)	2.15	.59	.25
Proprietary	0.0	0.0	.97	0.0
All Institutions	(.30)%	.36%	1.02%	1.78%

Table 3.5 Fund Group Balances in Perspective

	1975	1977	1979	1980
Sum of five fund group balances, for all institutions, as a percent of GNP	4.86%	4.57%	4.22%	4.24%
Ratio of the sum of five fund group balances to current fund expenditures at public institutions	1.88	1.83	1.84	1.78
Ratio of the sum of five fund group balances to current fund expenditures at private institutions	2.66	2.49	2.33	2.28
Sum of Endowment and Current Fund balances, for public institutions, as a percent of Current Fund expenditures	21.6%	20.8%	22.7%	23.4%
Sum of Endowment and Current Fund balances, for private institutions, as a percent of Current Fund expenditures	104.2%	99.0%	93.5%	94.5%

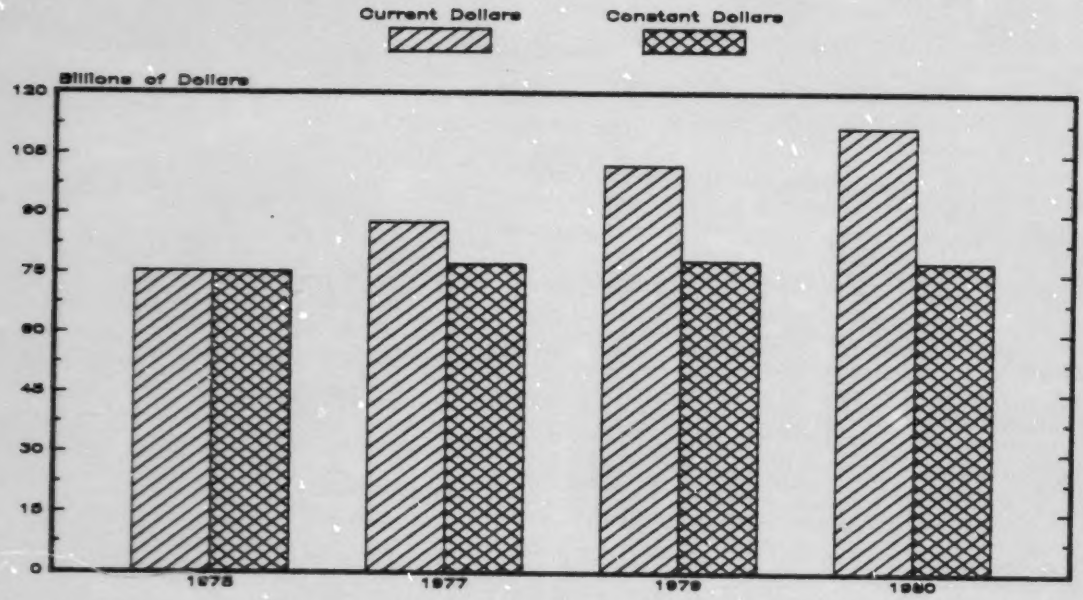

Fig. 3.1: Sum of End-of-Year Balances for Five Fund Groups,* FY 1975-80. [Source: HEGIS; HEPI used for constant dollars.]

*Current, Loan, Endowment, Annuity and Life Income, and Plant.

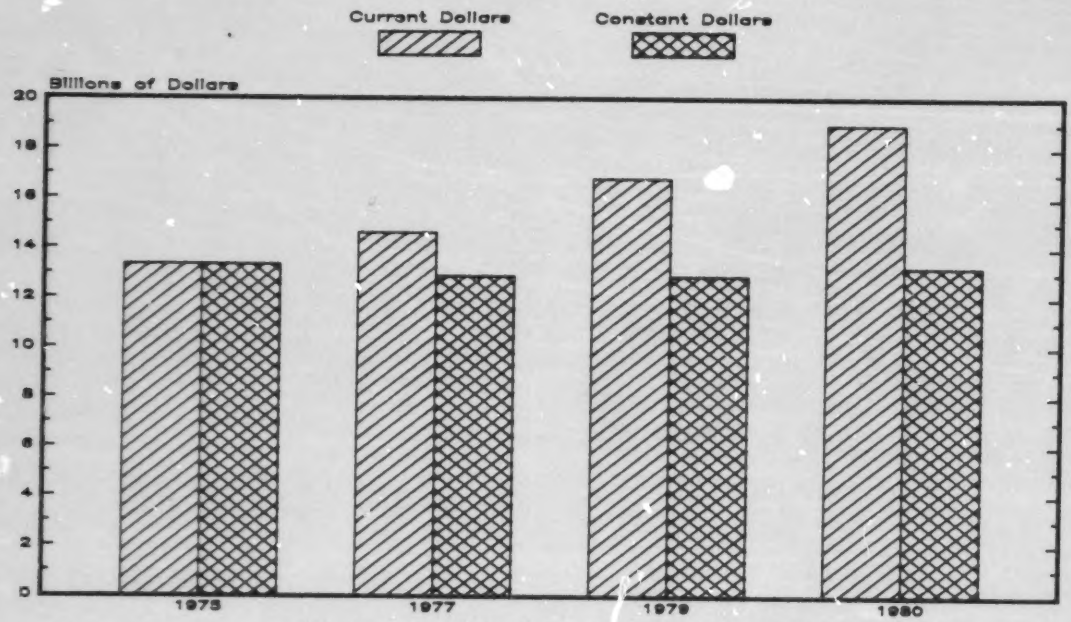

Fig. 3.2: Endowment Fund End-of-Year Balance, FY 1975-80. [Source: HEGIS; HEPI used for constant dollars.]

Unit Revenues

Revenues for day-to-day operations in higher education are to a considerable extent a function of the number of students enrolled. In many instances, the relationship is quite close; for example, at certain types of public institutions in states with formula funding, or private institutions that are highly dependent upon tuition revenues. In other cases, especially at institutions that receive large amounts of funding for research or public service or whose yield on endowment provides a substantial amount of money for current operations, the relationship between total revenues and total enrollment is less straightforward.

The revenue trends displayed in the preceding segments suggest modest growth in the amount of financial resources available to higher education, even when expressed in constant dollar terms. In one sense, that growth is of interest in its own right as an indicator of a change in the magnitude of higher education--regardless of the attendant service level. On the other hand, higher education's financial resources also need to be measured against the level of services provided. Whereas the total amount of resources available to higher education is indicative of absolute size, and relative size too when compared to resources devoted to other social goods, analyzing revenues with respect to levels of output, activity, or service addresses questions of funding adequacy--at least in a relative sense (over time and between classes of institutions).

Data Issues. There are several important constraints on what might be done to express revenues on a unit basis. Colleges and universities produce multiple outcomes, only some of which are readily measurable. Essential functions such as research and public service are difficult to analyze on a unit basis. In some respects, so is the instructional function, but at least in this case there are widely accepted indicators such as the number of students whereby the level of

service or activity can be measured. In this segment, then, the revenue-per-unit analysis will be confined to revenue-per-student. This approach requires answers to two subsidiary issues: which revenues to consider and how best to count students.

The relationship of interest for present purposes is that between revenues for student-related purposes and number of students. While the sources of funds can be delineated, as was shown in segment two, it is not possible within the national data base (HEGIS) to directly connect specific revenues with student-related, educational activities. Nonetheless, one can derive a reasonable approximation by: first, confining the analysis to educational and general (E&G) revenues (eliminating revenues related to hospitals, auxiliary enterprises, and independent operations); second, subtracting from E&G revenues the expenditure totals for separately budgeted research and public service (restricted funds for the purpose of conducting research or providing public services are counted as revenues only if actually expended within the fiscal year in question, so these expenditures are a good proxy for revenues); and, third, subtracting from E&G revenues a prorated share of administrative and academic services expenditures devoted to research and public service. The remaining E&G revenues can be regarded as being available for student-related educational purposes.

Students are counted in two ways in this segment: a traditional full-time equivalent (FTE) calculation and a weighted FTE calculation. The former approach recognizes that, on the whole, a part-time student places fewer demands on institutional resources than does a full-time student. Thus, it is appropriate to convert the number of part-time students into their full-time equivalents when considering the adequacy of available (financial) resources. Transforming headcount to FTE enrollment is a typical first step. Further discrimination

regarding the composition of the student body can be attained by using a weighted FTE figure designed to take into account the differences in resources that are required by students at different levels of instruction. Weighted FTE enrollment figures are used in this segment (see table 4.2 for details) along with the more traditional non-weighted FTE counts.

Enrollments weighted by type of program (major) would be theoretically appropriate too. From a practical standpoint, however, neither the enrollment data nor an acceptable weighting scheme for that purpose is readily available on a national basis; furthermore, the degree of precision involved would probably be greater than required for present purposes, as opposed, for example, to that required by certain types of complex funding formulas.

All of the data used in this segment are taken from HEGIS--the finance surveys and the enrollment surveys. Two data problems are worth noting. Subtracting separately budgeted research expenditures from E&G revenues does not necessarily remove all research-related expenditures. In the HEGIS reporting system, expenditures for research that are not separately budgeted are lumped together with instructional expenditures. Whether so-called "departmental research" should be considered educational is a matter of debate (for example, see Bowen 1980, Appendix C). In any case, the issue is of little importance for most institutions because they conduct very little research.

Although it has come to be a kind of common currency in higher education, FTE enrollment is definitely not calculated in the same way in all institutions. In reality, as Rhodes (1976) has documented, considerable variation exists. For present purposes, FTE figures have been calculated by taking the sum of reported full-time students plus one-third of the reported number of part-time students. This procedure avoids at least some types of major problems. It does not eliminate

the ambiguities involved in counting full-time and part-time students. Fortunately, studies have shown that aggregate enrollment data are unlikely to be seriously misleading. (For an overview of studies on the quality of HEGIS data, see Stroup 1980.)

Highlights. During the period from 1975 through 1980, student-related revenues changed as follows.

- by sector, on a weighted FTE student basis
  - overall, revenues at public institutions remained just over four-fifths of revenues at private institutions
  - the difference between unit revenues at public and private institutions was greatest for research universities; it was smallest for non-medical universities and comprehensive institutions
  - unit revenues increased about the same for publics (45.4%) as for privates (47.1%); both stayed just ahead of inflation (HEPI)
- by institutional class, per student (simple or weighted FTE)
  - the biggest percentage gainers in unit revenues were universities with medical programs and institutions specializing in the health professions
  - the smallest percentage gainers in unit revenues were two-year institutions and public baccalaureate institutions
  - among public institutions (excluding specialized schools) the ratio of highest to lowest revenue per FTE student was 1.97 in 1975, compared to 2.21 in 1980
    - as expected, the weighted FTE approach reduces these differences--to 1.34 in 1975, and 1.52 in 1980

- among private institutions (excluding specialized schools), the ratio of highest to lowest revenue per FTE student was 3.54 in 1975 and 4.90 in 1980
  - using a weighted FTE approach, the ratios are 2.30 in 1975 and 2.92 in 1980 (at four-year institutions only, the change was from 2.30 to just 2.34)

Table 4.1 Student-Related Revenues per FTE Student, By Institutional Class, FY1975-80

Institutional Class	1975	1977	1979	1980
Public	$2,813	$3,148	$3,785	$4,100
R-M	3,855	4,389	5,351	5,829
R-NM	2,693	3,257	3,763	4,053
D-M	3,424	3,851	5,104	5,583
D-NM	2,885	2,938	3,484	3,839
C	2,579	2,938	3,484	3,839
B	2,680	2,884	3,446	3,640
TYAC	1,952	2,088	2,455	2,640
TYO	2,321	2,486	3,023	3,130
HP	20,120	24,437	27,287	31,100
OS	6,647	6,816	7,720	8,584
Private	3,836	4,412	5,151	5,700
R-M	6,772	8,079	9,772	10,670
R-NM	8,340	9,332	10,888	12,894
D-M	5,101	6,244	7,708	8,526
D-NM	3,253	4,046	4,402	4,889
C	3,077	3,639	4,195	4,628
B	3,248	3,727	4,267	4,750
TYAC	2,412	2,544	3,023	3,364
TYO	2,354	2,265	2,300	2,631
HP	14,191	14,761	19,456	22,987
OS	3,304	3,437	4,289	4,435
Proprietary	1,638	2,246	2,419	2,477
All Institutions	$3,052	$3,440	$4,106	$4,477

Table 4.2 Student-Related Revenues per Weighted FTE Student*, By Institutional Class, FY1975-80

Institutional Class	1975	1977	1979	1980
Public	$2,190	$2,451	$2,940	$3,185
R-M	2,514	2,845	3,498	3,800
R-NM	1,866	2,243	2,592	2,802
D-M	2,311	2,622	3,426	3,763
D-NM	1,995	2,356	2,850	3,052
C	1,913	2,179	2,592	2,856
B	2,198	2,345	2,772	2,934
TYAC	1,873	1,972	2,299	2,467
TYO	2,261	2,377	2,878	2,973
HP	9,524	11,494	12,649	14,596
OS	4,902	5,109	5,835	6,343
Private	2,655	3,039	3,539	3,906
R-M	3,694	4,347	5,268	5,740
R-NM	4,852	5,443	6,410	7,408
D-M	3,083	3,865	4,750	5,216
D-NM	2,146	2,638	2,874	3,210
C	2,112	2,470	2,850	3,160
B	2,628	3,008	3,420	3,811
TYAC	2,336	2,483	2,885	3,203
TYO	2,296	2,151	2,191	2,541
HP	6,165	6,422	8,381	9,807
OS	2,068	2,132	2,613	2,669
Proprietary	1,531	1,992	2,244	2,286
All Institutions	$2,309	$2,601	$3,095	$3,373

* Following Bowen (1980) the following weighting scheme was used to convert simple FTE enrollments to weighted FTE enrollments: freshman and sophomores, 1.0; juniors and seniors 1.5; first-year graduate students 2.1; advanced professional students 2.5; and advanced graduate students 3.0. These weights are said by Bowen to reflect "the relative average costs of educating various categories of students" (p. 115).

Table 4.3 Percentage Changes in Dollars Per Student, By Institutional Class, FY75 to FY80

Institutional Type	% Change in Dollars Per FTE Student, FY75-FY80 Current $s	% Change in Dollars Per FTE Student, FY75-FY80 Constant $s*	% Change in Dollars Per Weighted FTE Student, FY75-FY80 Current $s	% Change in Dollars Per Weighted FTE Student, FY75-FY80 Constant $s*
Public	45.8%	1.6%	45.4%	1.4%
R-M	51.2	5.4	51.2	5.4
R-NM	50.5	4.9	50.2	4.7
D-M	63.1	13.7	62.8	13.5
D-NM	51.6	5.7	53.0	6.6
C	52.7	6.5	49.3	4.1
B	35.8	-5.3	33.5	-7.0
TYAC	35.2	-5.7	31.7	-8.2
TYO	34.9	-6.0	31.5	-8.4
HP	54.6	7.7	53.3	6.8
OS	29.1	-10.0	29.4	-9.8
Private	48.6	3.6	47.1	2.5
R-M	57.6	9.8	55.4	8.3
R-NM	54.6	7.8	52.7	6.4
D-M	67.1	16.5	69.2	17.9
D-NM	50.3	4.8	49.6	4.3
C	50.4	4.8	49.6	4.3
B	46.2	1.9	45.0	1.1
TYAC	39.5	-2.9	37.1	-4.4
TYO	11.8	-22.1	10.7	-22.9
HP	62.0	12.9	59.1	10.9
OS	34.2	-6.4	29.1	-10.0
Proprietary	51.2	5.4	49.3	4.1
All Institutions	46.7	2.2	46.1	1.8

* HEPI used for constant dollars.

Table 4.4 Comparison of Student-Related Revenues per Weighted FTE Student, Public vs. Private, by Institutional Class, FY1975 and FY1980

Institutional Class*	Public as % of Private 1975	Public as % of Private 1980
R-M	68.1%	66.2%
R-NM	38.5	37.8
D-M	75.0	72.1
D-NM	93.0	95.0
C	90.6	90.4
B	83.6	77.0
TYAC	80.2	77.0
TYO	98.5	117.0
Overall	82.5%	81.5%

* Health professional and other specialized institutions have not been included in the comparison because, on the whole, they are not comparable institutions across the two sectors.

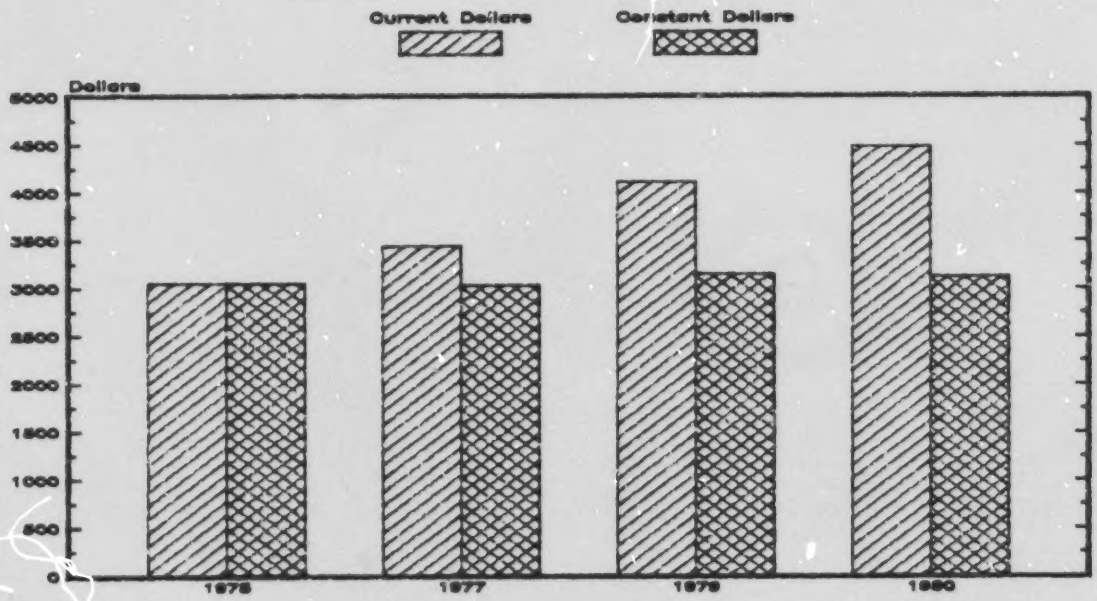

Fig. 4.1: Student-Related Revenues Per FTE Student, All Institutions, FY 1975-80. [Source: HEGIS; HEPI used for constant dollars.]

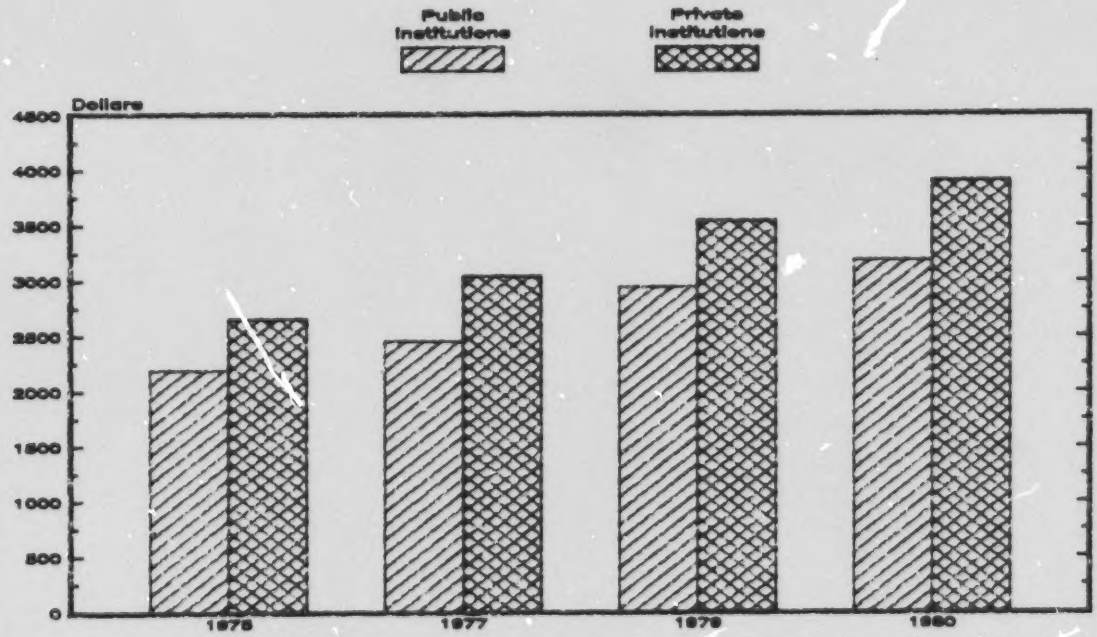

Fig. 4.2: Student-Related Revenues Per Weighted FTE Student, Public versus Private Institutions, FY 1975-80. [Source: HEGIS.]

The Federal Share

The federal government's role in higher education has traditionally been that of promoting special purposes, whereas the states were left, by constitutional authority, with the basic and broad responsibilities for education as a whole. Thus, federal expenditures for higher education have taken the form of support for landgrant institutions, veterans, basic research, black institutions, manpower training programs, needy students, and so on. Perhaps the closest thing to general support are the so-called tax expenditures, or tax write-offs, granted by the federal government on behalf of higher education.

Funds from the federal government have been channeled to higher education in basically two ways: as payments to institutions and as assistance to students. The aforementioned tax expenditures presumably enhance the flow of funds from various other sources (such as parents, alumni, and corporations).

The flow of federal funds to students in higher education can be thought of as being of two kinds. Some of the funds (for example, Pell grants) are a type of direct support to students, while other funds (such as veterans' benefits) can be considered as indirect support to students. The payments, in the latter case, do go to the student, but are indirect in the sense that their primary purpose is not educational.

The bulk of federal funds taking the form of payments to institutions are in support of research activities. Some federal money does support non research-oriented projects such as programs for disadvantaged students and vocational education. Other monies provide more general institutional support, as in the case of the developing institutions program and especially the aid given to a few special institutions.

Data Issues. There are two primary data sources for federal expenditures: The Budget of the United States Government, 1975-1983; and Special Analysis, Budget of the United States Government, 1975-1983. In the tables and figures that follow, the expenditure data shown are actual outlays in almost all cases (exceptions are noted), rather than either appropriations or obligations. Outlays may be greater or less than appropriations. Obligations, or at least future obligations that are incurred in a given year through programs such as the Guaranteed Student Loan Program, can be considerably greater than the outlays in the same year.

Data problems arise from the complexity of federal funding for higher education. Only about one-fourth of the federal government's estimated 400 postsecondary programs and less than one-third of all federal postsecondary expenditures are centralized in the Department of Education (Gladieux 1981). The problem of accounting for the expenditures on a consistent basis from year to year is formidable. On occasion, the Office of Management and Budget (OMB) has made that task considerably easier. For the first three data points of the time span covered in the tables and figures that follow, that is, 1973, 1975, and 1977, a special analysis of expenditures for education was prepared by OMB. These analyses were subsequently used by the author as the basis for gathering expenditures from the budget data for 1979 and 1980. On the whole, the data shown below for 1979 and 1980 are likely to be less accurate with respect to some of the details than in the earlier years. Areas where this is especially true are health and defense-related expenditures, and various kinds of "other" expenditures. The totals are generally reported and thus should be reasonably accurate--for present purposes--but proportions allocated to student assistance as opposed to payments to institutions involve some guesswork.

The basic structure for presenting and organizing the data, as shown in Table 5.1, was taken from Finn (1978). It should be noted that following Finn's approach apparently leads to slightly higher estimates of total expenditures than those obtained by Frances (1980), but slightly lower than those obtained by Gladieux (1981), even though all of the authors use the same primary data sources mentioned earlier (the differences are on the order of 1 to 2 percent). According to Finn, the OMB analysis results in relatively conservative estimates of the total federal contribution, because portions of adult and continuing education, campus-based training, and revenue sharing programs should probably be included in the total federal effort but are not. On the other hand, Finn's approach slightly overestimates (3 to 4 percent) the tax subsidy attributable to the federal government. Only that portion of an exemption which is equivalent in percentage terms to the portion of a tax that is not, in turn, used to support higher education could be strictly regarded as a hidden cost. The net effect of ignoring the tax issue is to overestimate the total federal contribution by about one-half of one percent.

Two price indexes were used to convert current to constant dollars. The Higher Education Price Index (HEPI) was used for payments to institutions, including payments for research and development, and the Consumer Price Index (CPI) was used for student assistance and for tax expenditures. This approach follows Gladieux (1981). Frances (1980) uses the Research and Development Price Index (R&DPI) to convert payments for research and development. The difference between the HEPI and the R&DPI averages less than 1 percent for each of the years covered in the present analysis (1973-1980). A comparison of the two indexes, and others, can be found in Halstead (1980).

Highlights. During the period from 1973 to 1980 inclusive, the following changes occurred in federal expenditures for higher education.

- The total amount of expenditures
  - increased 91 percent in current dollars, from $9.2 billion to $17.6 billion
  - increased 5.5 percent in constant dollars (CPI)
  - declined 10.9 percent in constant dollars on a per student basis
  - declined as a share of GNP from .70 percent to .67 percent
  - declined as a share of total federal non-defense expenditures from 5.1 percent to 4.0 percent
  - declined as a share of the total cost of higher education from 17.9 percent to 17.0 percent

- With respect to expenditure shares
  - direct assistance to students (for example, Pell grants) increased from 11 percent to 29 percent
  - indirect assistance to students (for example, veterans' benefits) decreased from 34 percent to 22 percent
  - payments to institutions, other than for research and development, decreased from 17 percent to 10 percent
  - tax exemptions, exclusions, and deductions related to higher education remained virtually constant

- With respect to expenditure amounts
  - assistance to students (direct and indirect combined) increased 21 percent in constant dollars
  - payments to institutions for research and development increased 24 percent in constant dollars

Table 5.1. Detailed Federal Expenditures for Higher Education[a]

Assistance to Students[b]	1973	1975	1977	1979[d]	1980	
Office/Department of Education						
Basic Educational Opportunity Grants	--	342	1387	1936	2415	h
"Campus-based" Aid and State Student Incentive Grants	829	844	865	1091	1268	h
Guaranteed Loans	206	335	344	662	1408	i
Other	0	110	88	80	75	j
Social Security - Dependents and Supervisors' Education Benefits	638	840	1181	1385	1565	k
Health Training and Other HEW	283	320	215	252[e]	190	l
Veterans' Education Benefits	2016	3479	2802	2120	1813	m
Defense Department	113	532	330	336	346	n
Other	110	111	109	105	100	j
Subtotal	4195	6913	7321	7967	9180	
Payments to Institutions						
Research and Development	1888	2228	2702[c]	3430	3915	o
Programs for Disadvantaged Students and Developing Institutions	85	230	130	226	250	p
Vocational Education	160	137	166	185[f]	207	q
Other OE/DOE Programs	159	7	118	80	75	j
Special Institutions	79	89	99	126	193	r
Health Resources	554	758	769	571[e]	529	l
Defense Department	289	71	326	336	346	n
Other	279	93	111	106	100	j
Subtotal	3493	3613	4421	5060	5615	
Tax Expenditures						
Exclusion of Scholarships and Fellowships		200	245	310[g]	355	s
Parental Personal Exemptions for Students 19 and Over		670	750	935	1030	
Deductions of Individual Contributions		440	525	680	785	
Deductions of Corporate Contributions		205	235	325	305	
Exclusion of Veterans' Education Benefits		255	260	190	190	
Exclusion of Social Security Student Benefits		50	73	99	123	
Exclusion of Interest on State and Local Student Loan Bonds		-	-	-	45	
Subtotal	1522	1820	2088	2539	2833	
Total	9210	12346	13830	15566	17628	

Notes for Table 5.1

Sources: Figures are derived from Special Analysis, Budget of the United States Government, Fiscal Years 1975-1983, called Analysis in the notes, and Budget of the United States Government, Fiscal Years 1975-1983, called Budget in the notes.

a The figures in this table represent actual expenditures in fiscal years 1973, 1975, 1977, 1979, and 1980, except for the tax expenditure data, all of which are estimates, and except for other figures as noted.

b The expenditure categories follow the scheme used by Finn (1980), except for the last category (exclusion of interest on state and local student loan bonds) which is new since 1980.

c Finn shows $2724, taken from Analysis 1979 table J-1. The figure shown, $2702, was taken from Analysis 1979, table P-6. The latter figure is used here because table P-6, or its equivalent, is available for all five years shown, while table J-1 is not.

d Data are estimates taken from Analysis 1979, except as noted.

e Estimates shown are less than those in Analysis 1979, in accord with expenditure data taken from Budget 1981.

f Estimate shown is less than that in Analysis 1979, in accord with expenditure data taken from Budget 1981.

g All tax expenditure estimates for 1979 were taken from Analysis 1981.

h Total outlay for basic (Pell) grants and campus-based grants was taken from Budget 1982. Author estimated the proportion of total outlays belonging to the two types of grants.

i From Budget 1982.

j Author's estimate. In the absence of special section on higher education in Analysis 82, the "other" outlays are difficult to determine. The estimates shown here are extrapolations from previous years' data.

k From Budget 1981 (estimate).

l Total health-related higher-education outlays are taken from Budget 1982. Proportion of outlays for student assistance and payments to institutions are author's estimates, based on the mean of the proportions in fiscal years 1977 and 1979.

m Author's estimate, based on the assumption that higher education veterans' benefits are 77.5 percent of total veterans' benefits for education and training. That percentage follows previous years as well as fiscal year 1981. Data on 1980 total benefits are taken from Budget 1982.

n Total defense-related higher-education outlays are interpolated from reported outlays for 1979 and 1981 in Budget 1981 and Budget 1983, respectively. Total outlays for 1980 as shown in Budget 1982 are $515, a figure which appears to be

inaccurate in the context of outlays in 1979 and 1981. Proportions of total outlays for student assistance and payments to institutions were estimated by author, based on proportions in effect during fiscal year 1977.

o From Analysis 1982.

p From Budget 1980: Appendix.

q Author's estimate. Total outlays for vocational education (from Budget 1982) were multiplied by 0.24 to get higher education's share, following the proportion in effect in fiscal year 1977.

r From Budget 1982.

s All tax expenditure estimates for fiscal year 1980 are taken from Analysis 1982.

Table 5.2. Direct and Indirect Federal Expenditures for Higher Education, FY1973-80, Current Dollars

	1973	1975	1977	1979	1980
Direct Outlays					
To Students	$1035	$1631	$2684	$3769	$5166
To Institutions	483	463	513	717	725
Subtotal	1518	2094	3197	4486	5891
	(16%)	(17%)	(23%)	(29%)	(33%)
Indirect Outlays	4282	6204	5843	5154	4989
	(47%)	(50%)	(42%)	(33%)	(28%)
R&D	1888	2228	2702	3430	3915
	(20%)	(18%)	(20%)	(22%)	(22%)
Tax Expenditures	1522	1820	2088	2539	2833
	(17%)	(15%)	(15%)	(16%)	(16%)
Total	9210	12346	13830	15609	17628
	(100%)	(100%)	(100%)	(100%)	(100%)

Percentage totals may not equal 100 because of rounding.

Table 5.3. Federal Expenditures by Major Objectives, FY1973-80, Constant Dollars*

	1973	1975	1977	1979	1980
Student Assistance					
Direct	$1035	$1342	$1968	$2307	$2847
	(11%)	(13%)	(19%)	(24%)	(29%)
Indirect	3160	4346	3401	2570	2212
	(34)	(42)	(33)	(26)	(22)
Subtotal	4195	5688	5369	4877	5059
	(45)	(55)	(52)	(50)	(51)
Payments to Institutions					
R&D	1888	1918	2048	2261	2349
	(21)	(18)	(20)	(23)	(24)
Other	1605	1292	1303	1074	1020
	(17)	(12)	(13)	(11)	(10)
Subtotal	3493	3110	3351	3335	3369
	(38)	(30)	(33)	(34)	(34)
Tax Expenditures	1522	1498	1531	1554	1561
	(17)	(15)	(15)	(16)	(16)
Total	9210	10296	10251	9766	9989
	(100)	(100)	(100)	(100)	(100)

Percentage totals may not equal 100 because of rounding.

* To convert current to constant 1973 dollars, HEPI was used for payments to institutions and CPI was used for student assistance and tax expenditures.

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Table 5.4 Federal Expenditures for Higher Education in Perspective

Federal Expenditures for Higher Education as Percent of:	1973	1975	1977	1979	1980
GNP	.70%	.80%	.72%	.65%	.67%
Total Federal Expenditures	3.6	3.8	3.5	3.2	3.0
Total Federal Purchases of Goods and Services	9.0	10.1	9.7	9.3	8.9
Total Federal Non-Defense Expenditures	5.1	5.0	4.6	4.2	4.0
Total Cost of Higher Education	17.9	18.6	18.1	17.3	17.0

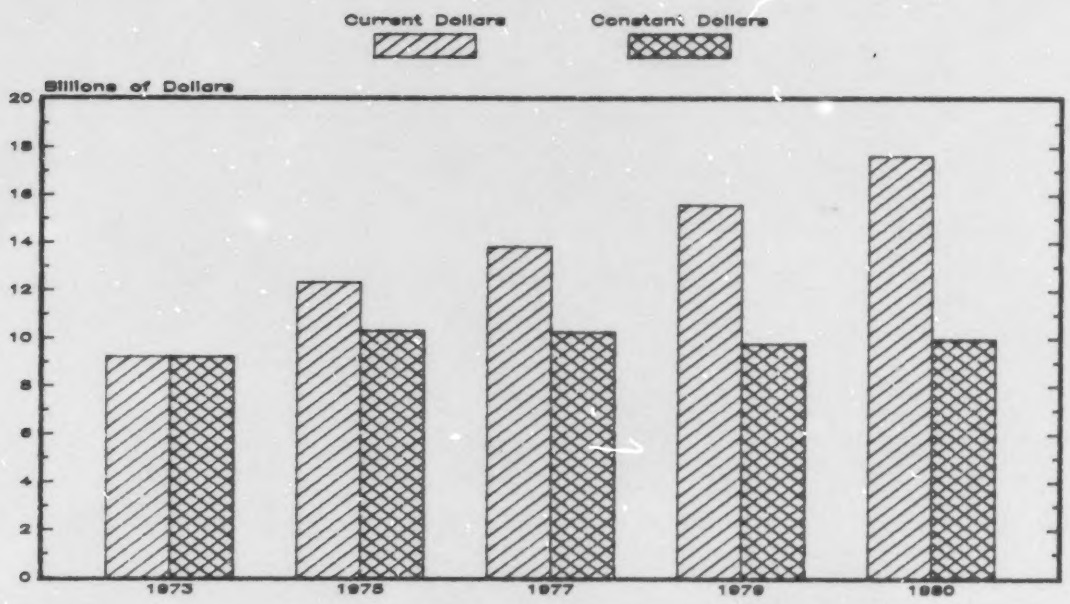

Fig. 5.1: Federal Expenditures for Higher Education, FY 1973-80. [Source: See Table 5.1.]

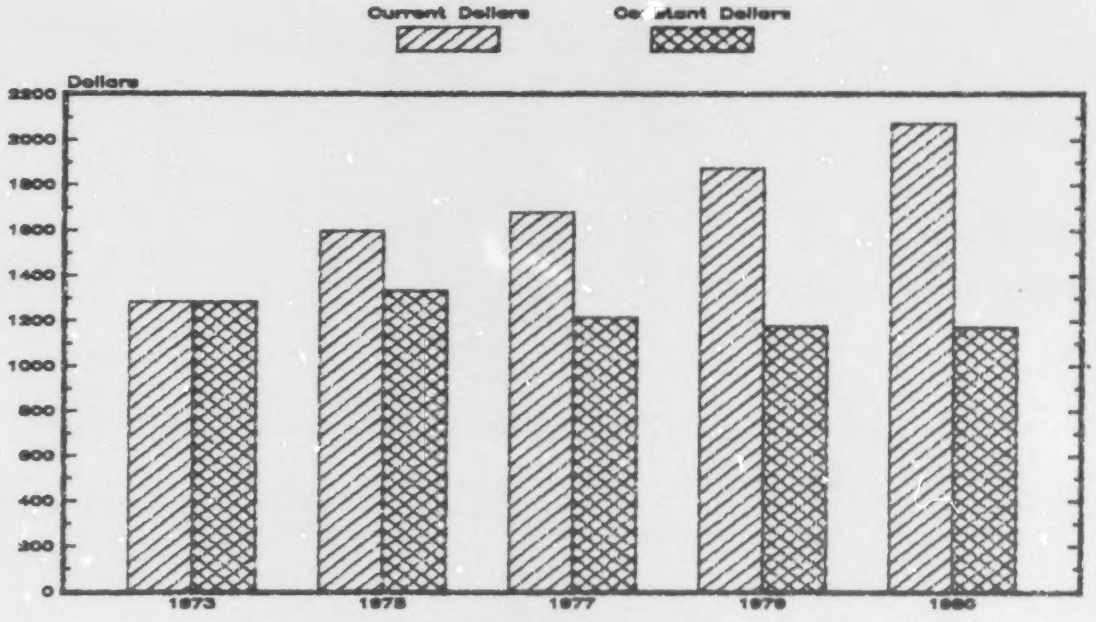

Fig. 5.2: Federal Expenditures for Higher Education per Full-Time Equivalent Student, FY 1973-80. [Source: See Table 5.1 for expenditures; HEPI used for constant dollars; enrollment data taken from HEGIS.]

The State and Local Share

The states, with modest help from local governments, have traditionally been responsible for the basic educational services that are to be supported with public monies. Their residual power, in a constitutional sense, extends to higher education as much as to primary and secondary education. Thus, it was the states that had the primary responsibility for funding the enormous increase in the size of public higher education in this century. Although the largest increases came earlier, the period from 1973 through 1980, which is the subject of the tables and charts that follow, was also a period of growth in state expenditures; however, much of the growth was negated by inflation in the price of goods and services.

State and local support for higher education is predominantly a matter of payments to institutions for both current operations and capital outlays. Explicit student aid, that is, monies earmarked for students, increased dramatically during the 1970s but still constituted a rather small portion of all state and local support by the end of the decade. As in the case of the federal government, state and local governments also provide financial support in a form other than a direct outlay. State income taxes, and state and local sales and property taxes, typically contain provisions that reduce the cost of higher education to the institutions, private donors, and students and their families. In addition to tax expenditures, other forms of support include the implicit rent on, and the depreciation of, the physical assets belonging to public higher education. Of the cost of higher education born by state and local governments, the proportion due to these non-outlay forms of support is nearly twice the amount on the federal side.

Data Issues. There are three primary data sources for determining the level of financial support provided by state and local governments: the annual report on state appropriations for higher edcucation compiled by M. M. Chambers; the annual

series of reports on governmental finances compiled by the U.S. Bureau of the Census (Governmental Finances 1973-80); and the annual HEGIS finance surveys conducted by NCES. The Chambers data on appropriations cover state governments only, and do not include appropriations for capital outlays. The census data on governmental finances include gross expenditures in higher education for both state and local governments, and their respective revenues from higher education. These data exclude expenditures and revenues related to hospitals and agriculture experiment stations, but include capital outlays. The latter are also reported separately, however, so that a version of net operating expenditures can be derived. HEGIS finance data include the book values of land, buildings, and equipment, and the current replacement value of buildings for each institution. These values form the basis for estimates of implicit rent, depreciation, and property tax subsidies. Current fund expenditures are also found in HEGIS; these expenditures, along with tax rate data in Governmental Finances, form the basis for estimating sales tax subsidies.

The important data problems for this segment are not so much a function of the data provided by the sources mentioned above, as they are a function of the various estimates that need to be made in order to capture the full economic cost of higher education born by state and local governments. The data notes provide the details of the choices that were made by the author in estimating tax subsidies, implicit rents, and depreciation on physical assets. It should be noted that there is some controversy about which, if any, tax expenditures to include. The approach taken here follows that of Schultz (1960) and Cohn (1979) in including the subsidies built into income, sales, and property taxes.

As indicated in segment five, federal budget documents contain estimates of federal income tax expenditures for higher education. No such data could be found

with respect to state governments, so the state income tax subsidy had to be estimated by the author. The key assumption made in developing the estimate was that the amount of the various income tax deductions and exemptions granted by the states is roughly similar in proportion to total state income tax revenues as the federal income tax subsidies are to total federal income tax revenues. In addition, it is generally agreed that only that portion of a tax subsidy which would not have been used to fund higher education can legitimately be considered as part of the opportunity cost attributable to higher education (Cohn 1979). Since income tax revenues typically are part of general fund revenues, and since, on average, about 9 percent of general fund expenditures were directed toward higher education during the 1970s (McCoy and Halstead, 1983), 91 percent of estimated higher education-related income tax exemptions were included as part of the cost for higher education born by state and local governments.

For the sales tax subsidy, which has no federal counterpart, the first step is to estimate a relevant average sales tax rate for the nation. A national average rate of 4.7 percent was arrived at by observing that for populous states the average rate was approximately 4 percent during the period from 1973 to 1980, and that revenues from local sales taxes, while increasing over that period, were about 17.5 percent on average of the revenues from state sales taxes [the combined rate, then, is 4 + (.175 x 4), or 4.7]. Estimating the sales tax subsidy also involves estimating the proportion of expenditures by colleges and universities that would be subject to a sales tax (essentially everything but salaries and wages). The taxable proportion of current fund expenditures was assumed to be 20 percent, as opposed to 40 percent for capital outlays for construction, and 100 percent for capital outlays for equipment.

With respect to property taxes, the annual rates were either taken directly, or they were extrapolated, from Cohn (1979). Cohn went on to assume that virtually no property tax revenue is directed toward higher education, and, therefore, that 100 percent of the property tax exemption granted to higher education should be considered as opportunity cost. Property tax revenues are primarily part of general fund revenues of local governments (typically more than 96 percent of all property tax revenues according to the data in Government Finances 1973-1980). On a national basis, total net expenditures by local governments for higher education are equivalent to about 6 to 7 percent of their general fund revenues. It seems reasonable to argue, then, that only about 93 or 94 percent of the property tax exemptions granted higher-education institutions can in fact be considered an opportunity cost.

Over the years, state and local governments have built up a multi-billion dollar investment in physical assets. Some analysts argue that outlays for physical assets should not be considered as part of annual costs; instead, capital costs are to be limited to the annual depreciation in the value of physical assets and to implicit rent, that is, the rent monies that could be earned if the physical assets were used for purposes other than higher education. For the present study, however, it seemed more appropriate to follow Blitz (1962), Machlup (1962), and Cohn (1979), in including capital outlays as an annual cost along with depreciation and implicit rent, a procedure which is consistent with the objective of considering all opportunity costs. Schultz (1960) used a value of 5.1 percent of book value as the rate for implicit rent. In view of the dramatic increases in interest rates during the 1970s, the 5.1 percent rate would seem to be much too low. For present purposes, it was assumed that the rate of implicit rent could be pegged to the yield on state and local government bonds. These yields went from 3.26 percent in 1960 to 7.80 in 1980. By assuming that the ratio of Schultz's rate

estimate in 1960 to the bond yield in 1960 (5.1 percent to 3.26 percent) would remain constant as the yield changed, specific rates of implicit rents were estimated for the 1973 to 1980 period (see footnote e in table 6.1). They were subsequently multiplied by the book value of higher education's physical assets to produce the rent estimates shown in table 6.1.

The following annual depreciation rates were taken from Cohn (1979): land, zero percent; equipment, 10 percent; and buildings, 2 percent. The 2 percent rate for buildings implies a fifty-year lifetime for the average campus structure; that estimate may be optimistic in view of the much discussed cutbacks in expenditures on building maintenance. If so, the estimated cost of depreciation shown in table 6.1 will be understated.

Highlights. During the period from FY1973 to FY1980, the following changes occurred in the financial support given to higher education by state and local governments.

- For current operations

  - state appropriations increased 124 percent in current dollars, 35 percent in constant dollars
  - local net expenditures increased 113 percent in current dollars, 28 percent in constant dollars; equalling a little more than one-fifth of state appropriations across the period
  - state appropriations plus local net expenditures increased slightly as a percent of all state and local purchases of goods and services--to just under 7 percent

- state appropriations plus local net expenditures increased slightly as a percent of current fund expenditures of all colleges and universities--to just over 40 percent

- The state and local share as a percent of the total cost of higher education

  - increased from 35.3 percent to 36.5 percent

- Tax expenditures

  - increased in value from $2.2 billion to $4.3 billion, a 19 percent increase in constant dollars; property tax exemptions accounted for about three-fourths of total tax expenditures

- Among capital costs

  - expenditures for capital outlays remained rather flat, increasing only 9 percent in current dollars
  - implicit rent jumped dramatically--54 percent in constant dollars--in accord with sharply higher interest rates

- For all costs born by state and local governments

  - the proportion going to current operations increased from 54 to 59 percent; the capital-cost portion declined from 35 to 30 percent; the tax expenditures portion stayed at 11 percent

Table 6.1. State and Local Government's Financial Support for Higher Education (Millions of Dollars), FY1973-80

Current Operations	1973	1975	1977	1979	1980	% Change FY1973-80 Constant $s*
State Appropriations [a]	$8510	$11250	$13900	$16980	$19080	23.5%
Local Net Expenditures [b]	1960	2700	3450	3760	4170	17.2
Subtotal	10470	13950	17350	20740	23250	22.4
Tax Expenditures						
State Income Tax [c]	240	290	350	400	490	12.5
Sales Tax [d]	300	370	440	510	570	4.7
Property Tax [e]	1640	1900	2450	2860	3280	10.2
Subtotal	2180	2560	3240	3770	4340	9.7
Capital Costs						
Implicit Rent [f]	2660	4790	4470	5520	6830	48.7
Depreciation [g]	1150	1380	1640	1890	2030	2.2
Capital Outlays [h]	2730	2820	2860	2780	2970	-37.0
Subtotal	6540	8990	8970	10190	11830	4.7
Total	$19190	$25500	$29560	$34700	$39420	18.3%

* CPI used for current operations and tax expenditures; Boeckh construction index for capital costs.

a Does not include appropriations for capital outlays. Source is M. M. Chambers. There are several factors to keep in mind when interpreting appropriations data. The percentage increase is likely to be slightly overstated because reporting was probably better (more complete) in 1980 than 1973; for example, with respect to fringe benefits. Also, the composition of the appropriations evolved over the period; for example, proportionately more funds went to student aid (3.7 percent in 1973 compared to 4.1 percent in 1980).

b Does not include expenditures for capital outlays. Source is U.S. Bureau of the Census, Governmental Finances, 1973-1980.

c Author's estimate based on the assumption that the ratio between "tax expenditures" (for example, deductions for charitable contributions) for higher education and total income tax revenue is the same for the states as it is for the federal government. The annual federal ratios, which were derived from Special Analysis 1973-1982, were used to estimate the gross state income tax subsidy from state income tax revenue data that came from Governmental Finances, 1973-1980. The gross subsidy was multiplied by (1-.09) to obtain the net subsidy, or real hidden cost, shown in the table.

d Author's estimate based on the following assumption: a sales tax rate (all state and local areas combined) of 4.7 percent; a taxable proportion of current fund expenditures equal to 20 percent; a taxable proportion of capital outlays for construction equal to 40 percent; a taxable proportion of capital outlays for equipment equal to 100 percent; and a proportion of sales tax revenues going to higher education equal to 9 percent (a proportion roughly equal to that between total gross expenditures for higher education and total gross, direct, general expenditures, at the state level). The calculation is: [(current fund expenditures for all public and private institutions in a given year x .2) + (construction expenditures x .4) + capital equipment expenditures] x .047 x (1-.09). Data are taken from Governmental Finances and HEGIS.

e Author's estimate. Property tax rates (effective rate per dollar of current market value) used were 1.85, 1.90, 1.93, 1.95, and 1.96 percent for 1973, 1975, 1977, 1979 and 1980, respectively. The rates for 1975 and 1977 were taken from Cohn (1979); the others were developed by linear interpolation and extrapolation from other data provided by Cohn. Estimated proportions of property tax revenues going to higher education were 5.8, 6.6, 6.4, 6.8, and 7.1 percent in 1973, 1975, 1977, 1979 and 1980, respectively, based on the ratio of gross expenditures on higher education to total gross, direct, general expenditures, at the local level (as shown in Governmental Finances 1973-1980). The calculation for fiscal year 1973 is: current replacement value of property x .0185 x (1-.058).

f Author's estimate. Schultz (1960) used an implicit interest rate of 5.1 percent in 1960. In view of the interest rate increases during the 1970s, it appeared that Schultz's figure should be revised upward. Upward revision was done as follows: the ratio, in 1960, of Schultz's interest rate estimate to the yield on state and local bonds (Aaa) was 5.1 percent to 3.26 percent. This ratio was assumed to remain constant as bond yields increased during the 1970s. The resulting estimates of implicit interest rates are 7.81, 11.92, 9.57, 10.51, and 12.27 percent in 1973, 1975, 1977, 1979, and 1980, respectively. These rates were applied to the book values of the physical assets owned by public institutions (HEGIS data).

g Author's estimate based on depreciation rate of 2 percent for buildings, 10 percent for equipment, and zero percent for land rates follow Cohn (1979). Data on book value of buildings, equipment, and land are taken from HEGIS.

h Data are taken from Governmental Finances, 1973-1980.

Table 6-2. State and Local Financial Support for Higher Education (Percents of Current Dollars), FY 1973-80

	1973	1975	1977	1979	1980
Current Operations					
State Appropriations	44%	44%	47%	49%	48%
Local Net Expenditures	10	10	12	11	11
Subtotal	54	54	59	60	59
Tax Expenditures					
State Income Tax	1	1	1	1	1
Sales Tax	2	1	1	1	1
Property Tax	8	7	8	8	8
Subtotal	11	9	10	11	11
Capital Cost					
Implicit Rent	14	19	15	16	17
Depreciation	6	5	6	5	5
Capital Outlays	15	12	10	8	8
Subtotal	35	36	31	29	30
Total*	100%	100%	100%	100%	100%

* Totals and subtotals may not always add correctly because of rounding.

Table 6.3 State and Local Financial Support for Higher Education in Perspective

	1973	1975	1977	1979	1980	1981
State and Local Financial Support for Higher Education as a Percent of GNP*	1.4%	1.6%	1.5%	1.4%	1.5%	
State and Local Capital Outlays for Higher Education as a Percent of All State and Local General Expenditures** for Capital Outlays	8.6	7.1	7.4	6.2	5.6	
State Appropriations plus Local Net Expenditures on Higher Education as a Percent of State and Local Purchases of Goods and Services	6.2	6.4	6.9	6.8	6.8	
State Appropriations and Local Net Expenditures on Higher Education as a Percent of Total Current Fund Expenditures by Colleges and Universities	37.2	39.5	40.5	40.6	40.6	
State and Local Share as a Percent of the Total Cost of Higher Education	37.4	38.4	38.7	38.2	38.0	

* GNP adjusted upward by the amount of implicit rent and depreciation.

** Excluding capital outlays by local utilities.

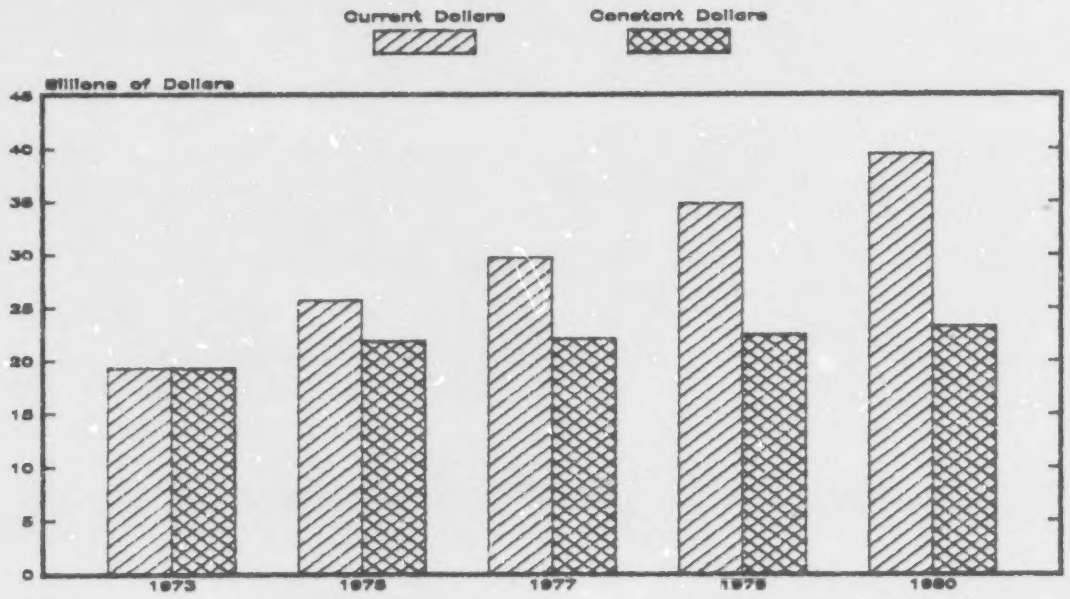

Fig. 6.1: State and Local Financial Support for Higher Education, FY 1973-80. [Source: See Table 6.1. Constant dollar estimates based on the HEPI for outlays for current operations, the CPI for tax expenditures, and the Boeckh construction index for capital costs.]

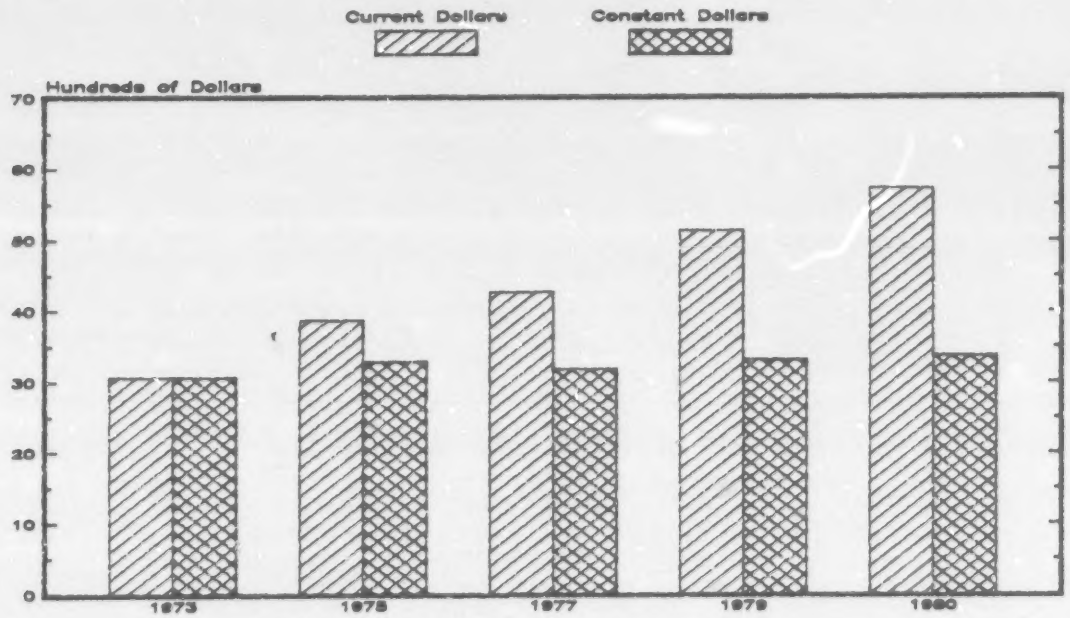

Fig. 6.2: State and Local Financial Support* for Higher Education per FTE Student in Public Institutions, FY 1973-80. [Source: See Table 6.1]

*Excluding expenditures for capital outlays.

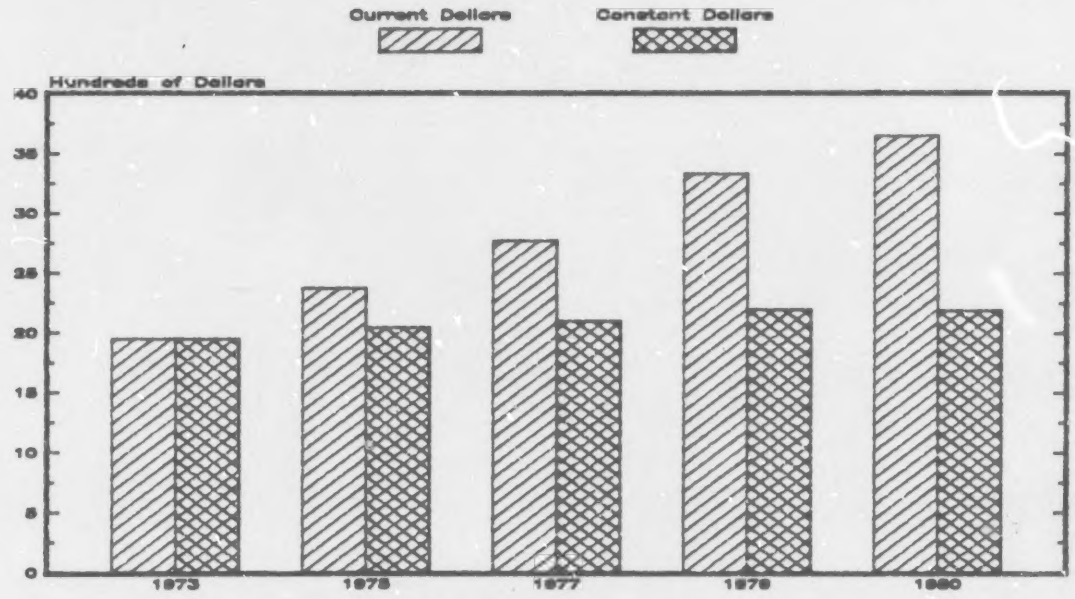

Fig. 6.3: State Appropriations and Local Net Expenditures for Current Operations per FTE Student at Public Institutions, FY 1973-80. [Source: See Table 6.1.]

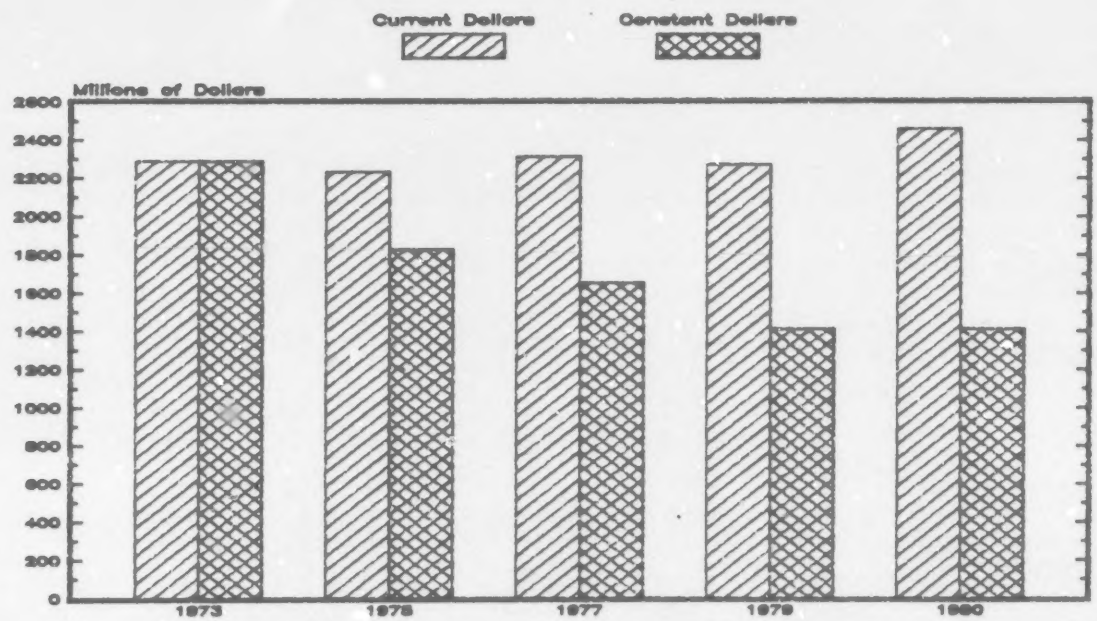

Fig. 6.4: State Expenditures for Capital Outlay for Higher Education, FY 1973-80. [Source: See Table 6.1. Constant dollar estimates based on the HEPI for equipment and land outlays, and the Boeckh construction index for construction outlays.]

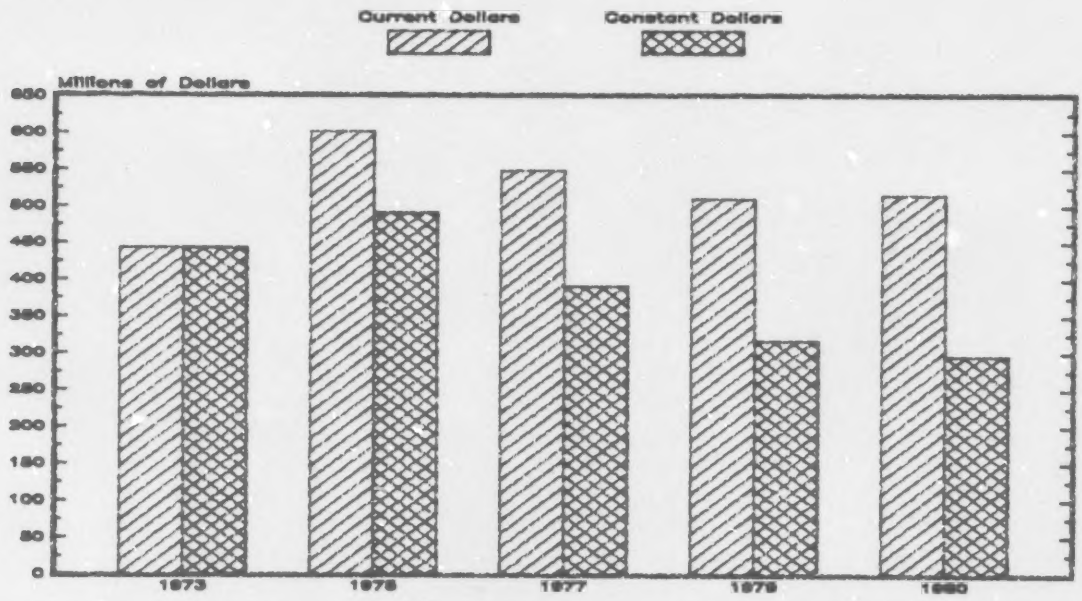

Fig. 6.5: Local Expenditures for Capital Outlay for Higher Education, FY 1973-80. [Source: See Table 6.1. Constant dollar estimates based on the HEPI for equipment and land outlays, and the Boeckh construction index for construction outlays.]

Voluntary Support

From its inception, U.S. higher education has depended to some extent on voluntary contributions. The enormous growth during this century of publically supported higher education brought with it a diminished role for voluntary support--at least with respect to higher education as a whole. Nonetheless, voluntary support remains an essential ingredient of the funding picture for certain types of institutions, as the data in segment two above suggest. Furthermore, when the financial or the political scene at the state or federal level becomes less favorable, public institutions as well as private institutions turn increasingly to voluntary contributions--to maintain quality if not for survival itself.

Federal and state governments have encouraged voluntary support to higher-education institutions. By allowing income tax deductions for individual and corporate contributions to colleges and universities, both levels of government have become partners in the voluntary support activity. Based on the estimates used herein, it appears that the government contributes about one-third of the total amount of voluntary support received by the nation's colleges and universities.

Data Issues. There are three basic sources for data on voluntary support. The Council for Financial Aid to Education (CFAE) publishes an annual document entitled Voluntary Support of Education. This document provides data on both specific sources such as alumni and religious organizations and specific purposes such as student aid and research. The data are based on an annual survey of a sample of institutions. On the basis of the survey results, CFAE estimates the amount of voluntary support for all of higher education.

Data on federal income tax expenditures related to deductions for individual and corporate gifts to higher education are found in the Special Analysis, Budget of the United States Government, 1975-1982. Comparable data on state tax expenditures are not directly available; however, estimates can be derived for present purposes by assuming that, of the total state income tax subsidy for higher education, the proportion attributable to individual and corporate gifts would be the same as at the federal level in any given year. Estimates of total state income tax expenditures on behalf of higher education are shown in table 6.1 above, based on data from Governmental Finances in 1973-1980.

Another potential source of data, the HEGIS finance survey, no longer permits one to ascertain the amount of voluntary support, as customarily understood. Pre-fiscal year 1975 financial survey forms distinguished between private support for philanthropic purposes and private (that is, non-governmental) contracts for specific purposes. In the current surveys, the distinction is no longer recorded: "private gifts, grants, and contracts" now constitutes one revenue category. The amounts shown in this category will always exceed, in the aggregate at least, the CFAE estimated amount of voluntary support for current operations. One could, of course, construe voluntary support, or perhaps non-governmental support, in a broader sense congruent with the current survey instrument. In that case, the relevant data are shown in the section on sources of revenues (segment two above).

Highlights. From fiscal year 1973 through fiscal year 1980:

- Voluntary support rose from $2.24 billion to $3.8 billion, an increase of 70 percent in current dollars, but only about 2 percent in constant dollars.

- Voluntary support grew faster for current operations than for capital purposes.

- Contributions from business corporations grew the most--118 percent in current dollars.

- Contributions from non-alumni individuals grew the least--41 percent in current dollars.

- In constant dollars, support designated for physical plant and student aid declined, while support designated for research, faculty compensation, and "other purposes" increased.

- Measured against educational and general expenditures at higher-education institutions, voluntary support for current operations has remained virtually constant since 1975--covering about 5 percent of those expenditures.

- Measured against the GNP, voluntary support has declined slightly since 1975--equalling about one-eighth of one percent in 1980.

- Of the total amount of voluntary support, about two-thirds constituted an actual expense to private donors; the other one-third was contributed by the federal government (29 percent) and state governments (5 percent) through the tax expenditure mechanism (allowable income tax deductions for individual and corporate contributions).

Table 7.1. Estimated Voluntary Support* by Source and Purpose
(Millions of Dollars)

	1973	1975	1977	1979	1980	% Change 1973-80	% Change 1973-80 Constant $s**
Total Voluntary Support	$2240	$2160	$2670	$3230	$3800	+ 70%	+ 1.8%
Sources							
Alumni	536	486	638	785	910	+ 70	+ 1.9
Non-alumni Individuals	600	516	646	736	847	+ 41	-15.3
Foundations	524	497	558	701	903	+ 72	+ 3.4
Business Corporations	320	357	446	556	696	+118	+30.5
Religious Denominations	99	112	136	161	155	+ 57	- 6.1
Other	161	192	246	291	289	+ 80	+ 7.7
Purposes[a]							
Unrestricted	760	695	865	1018	1251	+ 65	- 1.2
Physical Plant	413	335	430	465	599	+ 45	-13.0
Research	292	324	398	508	577	+ 98	+18.6
Student Aid	322	287	342	409	492	+ 53	- 8.3
Faculty Compensation	114	136	166	193	226	+ 98	+18.9
Other	339	382	469	637	655	+ 93	+15.9
Current Operations	1230	1370	1620	2010	2250	+ 83	+ 9.8
Capital Purposes	1010	799	1050	1220	1550	+ 54	- 7.9

* Includes government share; that is, the figures shown do not reflect the actual cost to the donors, but rather what the institutions record as revenues from the donors.

** CPI

Source: Council for Financial Aid to Education, Voluntary Support for Education, 1973-1980; HEPI used for constant dollars.

[a] The data shown for 1973 are the author's estimates, except in the case of current operations and capital purposes. CFAE did not begin estimating values for the remaining six categories until 1974-75. The procedure used to generate the 1973 estimates for the latter categories was based on the assumption that the proportion of funds allocated to each purpose for the nation as a whole would be the same as the proportions in the sample. CFAE's estimates in subsequent years were apparently based on the same assumption, although in 1979-80 they did make some allowance for one exceptionally large non-recurring gift.

Table 7.2. Voluntary Support, Shares
(Millions of Dollars)

	1973	1975	1977	1979	1980
Total Voluntary Support	$2240 (100%)	$2160 (100%)	$2670 (100%)	$3230 (100%)	$3800 (100%)
Donor Share[a]	1470 (66)	1400 (65)	1775 (66)	2050 (63)	2500 (66)
Federal Share[b]	660 (29)	645 (30)	760 (28)	1005 (31)	1090 (29)
State Share[c]	110 (5)	115 (5)	135 (5)	175 (5)	210 (5)

a Estimates derived by subtracting federal and state government shares from Voluntary Support totals.

b Taken from table 5.1 above: the sum of federal tax expenditures for individual and corporate contributions to higher education. The figure for 1973 is the author's estimate based on the assumption that the ratio of the federal share to the total amount of voluntary support would be the same in 1973 as the mean ratio for the years 1975-1980 (or .295).

c Author's estimate based on the assumption that the ratio of income tax expenditures to total tax expenditures at the state level is about the same as it is at the federal level in any given year. For example, in 1977, the ratio at the federal level was 760/2088 (table 5.1), or .364. Multiplying total state tax expenditures for 1977--$380 million (table 6.1)--by .364 yields an estimate of $135 million.

Table 7.3. Voluntary Support for Higher Education in Perspective

Voluntary Support as a Percent of:	1973	1975	1977	1979	1980
GNP	.17%	.14%	.14%	.13%	.13%
Total Educational and General Expenditures	5.5	5.0	4.9	5.2	5.1
Total Voluntary Giving	9.6	8.0	7.4	7.5	8.0
Disposable Personal Income	.16	.13	.14	.12	.12
Donor Share of Voluntary Support as a Percent of:					
Total Annual Cost of Higher Education	2.9	2.1	2.3	2.3	2.4

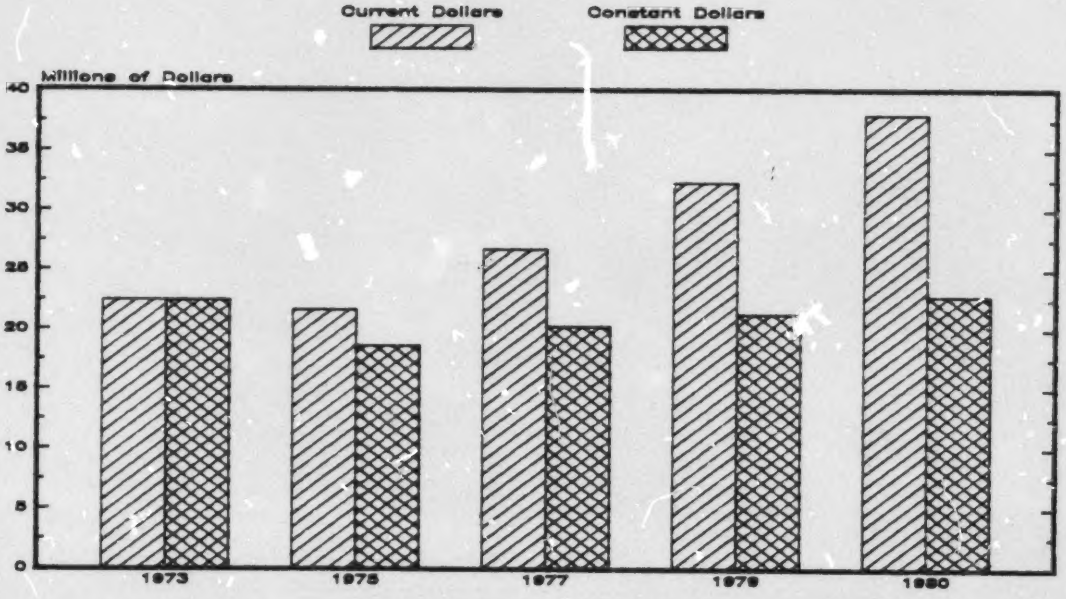

Fig. 7.1: Voluntary Support, FY 1973-80. [Source: See Table 7.1; HEPI used to convert current to constant dollars.]

The Institutional Share

Institutions of higher education typically have some financial resources of their own to devote to current operations; that is, resources beyond those made available in a given year by governments, students, and voluntary support. For present purposes, the revenues from the following institutional sources are summed to yield the values for the institutional share: earnings (excluding capital gains or losses) on endowment, sales and services of educational activities (those activities that are incidental to the primary functions of instruction, research, and public service, such as university presses and testing services), and "other sources" such as the sale of computer time and interest income and gains (net of losses) from short-term investments of unrestricted funds.

Both public and private institutions contribute to the revenue needed for current operations in the above sense. Private institutions contribute to the overall funding of higher education in other ways as well: they use up physical capital (in the sense of depreciation); they devote physical capital to higher education instead of to some other endeavor (the opportunity cost recorded as implicit rent); and they construct or purchase new physical capital to devote to higher education. Estimates of these capital-related costs are shown in Table 8.1. Similar costs are incurred by public institutions, but their capital-related costs have already been accounted for as part of the share attributable to state and local governments (as owners of the physical capital).

Data Issues. The basic data source for this section is the annual HEGIS finance survey, Parts A through C. In the highly aggregated form used here, the threat from misreported data or other data errors should be modest. On the other hand, the values shown for depreciation and implicit rent are estimated values and as such are subject to considerable error. This is particularly true for implicit rent where the

estimated rates have been pegged to state and local bond yields. As recently as 1979, Cohn was willing to use Schultz's 1960 estimate of a rate of 5.1 percent, although Cohn did acknowledge that recent (mid 1970s) interest rate increases probably biased downward his subsequent estimates of implicit rent. In view of the high interest rates, and the volatility of those rates, over the past few years, it seemed appropriate to use a higher interest rate structure, and to let the rates vary year by year. The rates actually used and related calculations are discussed in footnote d of table 8.1. The rates are the same as those used in estimating implicit rents for publically owned buildings (segment six).

Highlights. Over the period from FY1973 to FY1980, the institutional contribution to the funding of higher education:

- rose 105 percent in current dollars, 23 percent in constant dollars
- rose 73 percent per FTE student in current dollars, 4 percent in constant dollars
- constituted about 8 to 9 percent of total financial resources devoted to higher education

Over the same period, the portion of the institutional share attributable to current operations:

- rose 75 percent per FTE student in current dollars, 5 percent in constant dollars
- remained at about 40 percent of the overall institutional share
- was quite consistently divided between public institutions (45 percent) and private institutions (55 percent)

- Typically constituted about 5 to 6 percent of E&G expenditures at public institutions, compared to about 14 to 15 percent at private institutions

Table 8.1. Institutional Share (Millions of Dollars), FY 1973-80

	1973	1975	1977	1979	1980	% Change 1973-80 Current $s	% Change 1973-80 Constant $s*
Current Operations [a]							
Public	$890	$950	$1080	$1545	$1890	112%	27%
Private	1075	1155	1370	1815	2175	102	21
Subtotal	1965	2105	2450	3360	4065	107	24
Capital Costs [b] (Private institutions only)							
Depreciation [c]	550	630	720	810	870	58	5
Implicit Rent [d]	1400	2390	2130	2560	3170	126	36
Capital Outlays [e]	480	830	760	610	1100	95	17
Subtotal	2430	3850	3610	3980	5140	104	22
TOTAL	4395	5955	6060	7340	9205	105	23

a Author's estimate: the sum of revenues from endowment earnings (excluding capital gains or losses), sales and services of educational activities, and "other sources."

b Capital costs for public institutions are counted under state and local share.

c Author's estimate. Depreciation rates of 2 percent for buildings and 10 percent for equipment were applied against the respective book values (mean of beginning and end of year). Physical asset data were taken from HEGIS. Depreciation rates follow Cohn (1979). Depreciation on physical assets of public institutions have been included as part of the state and local share (segment six).

d Author's estimate. Schultz used an implicit interest rate of 5.1 percent in 1960. His estimated rate was revised upward as follows: the ratio, in 1960, of Schultz's interest rate estimate to the yield on state and local bonds (Aaa) was 5.1 to 3.26; this ratio was assumed to remain constant as bond yields increased during the 1970s. The resulting estimates of implicit interest rates are 7.81, 11.92, 9.57, 10.51, and 12.27 percent in 1973, 1975, 1977, 1979, and 1980, respectively. These rates were applied to the book values (mean of beginning and end of year) of the physical assets owned by private institutions. Physical asset data were taken from HEGIS.

e Data taken from HEGIS: book values at end of year minus book values at beginning of year.

* HEPI used for constant dollars.

Table 8.2. Institutional Share in Perspective

Institutional Share as a Percent of:	1973	1975	1977	1979	1980
GNP*	.33%	.38%	.32%	.30%	.35%
Total Cost of Higher Education	8.6	9.0	7.9	8.2	8.9
Current Operations Portion of Institutional Share as a Percent of:					
E&G Expenditures-- Public Institutions	5.9	4.9	4.7	5.6	6.1
E&G Expenditures-- Private Institutions	14.6	13.7	13.5	14.8	15.7
Total Institutional Share	41.6	33.8	38.3	43.6	42.0

* GNP adjusted upward by the amount of implicit rent and depreciation.

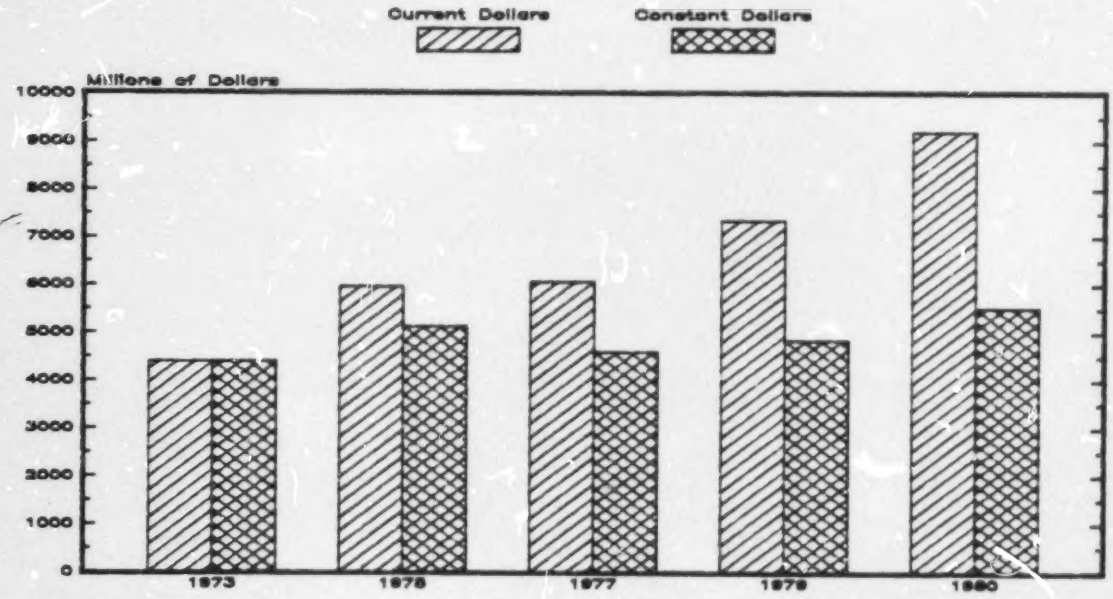

Fig. 8.1: Institutional Share, FY 1973-80. [Source: See Table 8.1 for current dollars; HEPI used for constant dollars.]

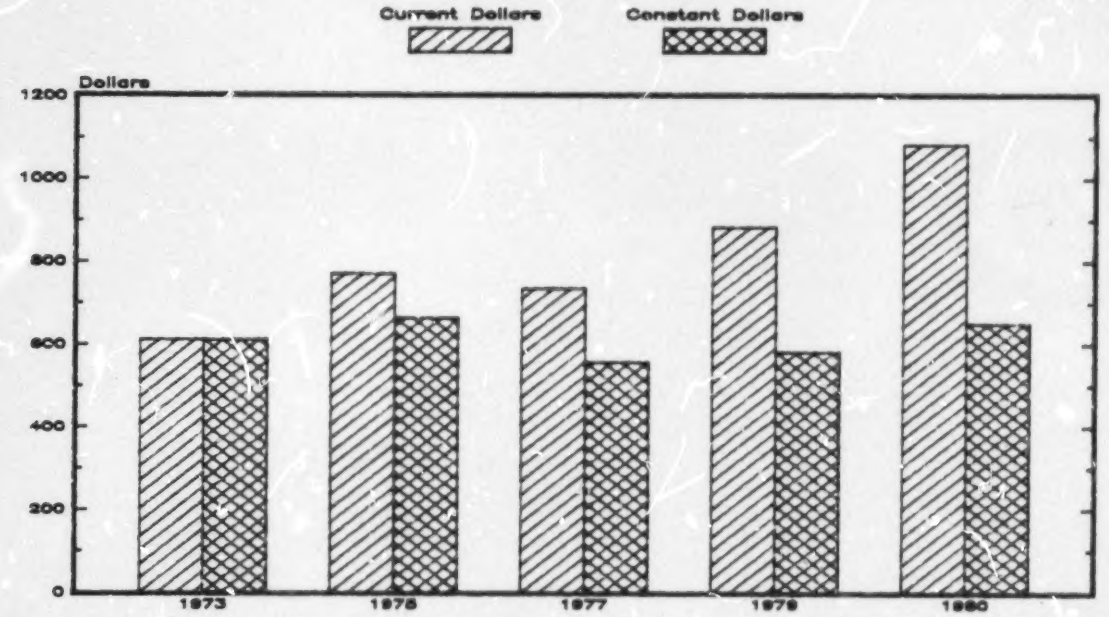

Fig. 8.2: Institutional Share per FTE Student, FY 1973-80. [Source: See Table 8.1 for current dollars; HEPI used for constant dollars; enrollment data taken from HEGIS.]

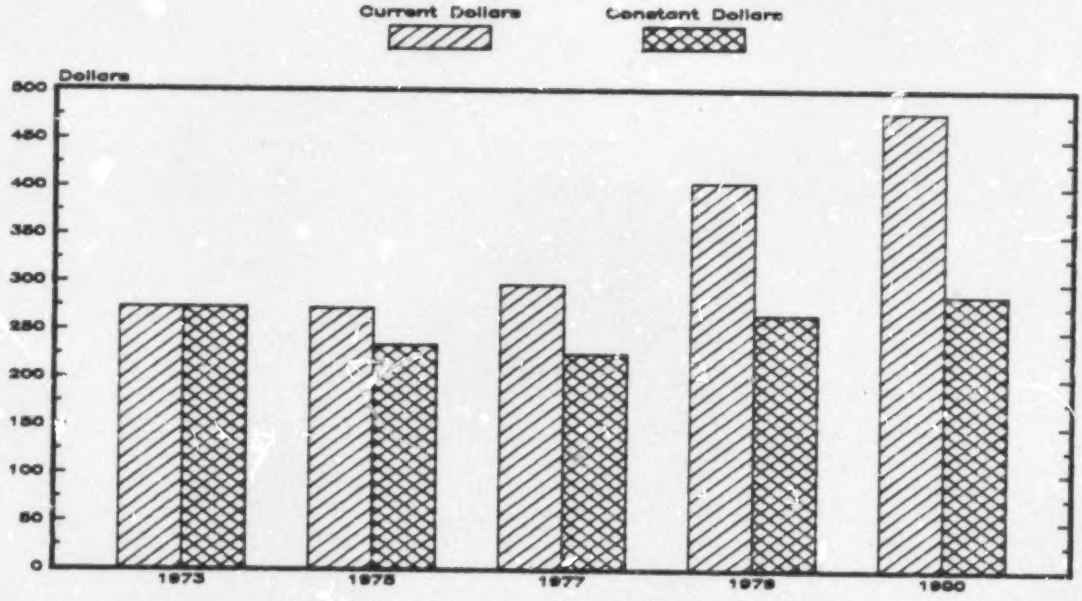

Fig. 8.3: Institutional Share for Current Operations per FTE Student, FY 1973-80. [Source: See Table 8.1 for current dollars; HEPI used for constant dollars; enrollment data taken from HEGIS.]

The Student-Family Share

Historically, public policy in regard to (public) higher-education financing has been based upon the assumption that government would pay most of the costs of instruction and students would donate primarily their own time and pay their own higher education-related living expenses. (In privately controlled institutions, the government role has, of course, been much smaller.) This shared responsibility has been rooted in the general notion that both society and the individual benefit from higher education and that this cost allocation is in rough accordance with the share of benefits realized by each. Although changes in the historic policy have been witnessed during the past decade with the shifting of government support from institutions to targeted students, the fundamental understanding remains. Government still pays the major share of public instructional costs, while providing substantial amounts of aid to students in both sectors, and students for the most part still contribute their time and, with family support, pay most of their own living expenses and a share of instructional costs.

Thus, students contribute to higher-education funding in several ways. Most notably, they forego earnings while investing in their own human capital. Second, they pay tuition and fees that help to offset costs of instruction. Third, they purchase books and supplies. Fourth, they pay for room and board and for transportation and other such expenses that can be assigned to higher education. In a strict accounting sense, only those living expenses that are in addition to normal living expenses can be assigned to higher education. The remainder would be incurred regardless of the individual's selection of work, homemaking, military service, idleness, etc.

Data Issues. Data problems or issues are of two kinds. The first has to do with general data availability and quality, the second with data completeness or the specificity required in answering the necessary questions.

In regard to the first problem, data representative of the total U.S. student population is a major difficulty. The best general data sources probably are the Cooperative Institutional Research Program (CIRP) surveys and the National Longitudinal Study (NLS) of the High School Class of 1972. However, CIRP adequately assesses first-time, full time freshmen only, and NLS was of a single highsschool graduating class followed only for four years. Neither broadly represents the total U.S. collegiate population. Particularly unrepresented are part-time students and those of nontraditional college age. Further, data are self-reported and for CIRP are in ordinal form, requiring conversion if comparability is desired.

The second problem regards the adequacy of specific information necessary to answer the required questions. The two problems are not completely separable. CIRP, in reporting freshmen, first-time, full-time data only, lacks the information necessary for estimating what individual earnings and spending would have been if students had not opted for collegiate enrollment. Thus, it is not possible from CIRP to compute either earnings foregone or the incremental living costs associated with higher education. The NLS is somewhat superior, in these regards, in that the non-student (collegiate) cohort is followed, too; however, NLS does not gather cost of living data for nonstudents either. Therefore, the NLS permits estimates of foregone earnings, but the living expenses that should be assigned to higher education cannot be obtained directly. The result is that in the tables within this section, direct costs are defined as student expenditures for tuition, fees,

books, and supplies. Room, board, and transportation costs are not included because it could not be established that, on average, for all students and comparable non-students, these costs actually varied.[1]

Direct costs for undergraduates were estimated as follows. First, average undergraduate tuition and fee data (taken from Brown, Kahl, and Kriz 1981) were added to average expenditures for books and supplies. NLS data on actual expenditures suggest that students spend somewhat less on books and supplies than the estimates made by the College Scholarship Service (CSS); accordingly, a value of 85 percent of the CSS estimates was used for 1975 through 1980, with the NLS estimate used for 1973. The sum of tuition, fees, books, and supplies is the direct cost.

The net direct cost is calculated by subtracting the average reported amount of scholarship, grant, and loan subsidy, plus other benefits, per full-time student from average direct cost. Financial aid data for full-time freshmen were obtained from CIRP for the years 1975 through 1980; the value for 1973 was estimated using the CIRP data in conjunction with NLS data for 1973. The CIRP-NLS data were adjusted for over or under reporting of veterans benefits, social security benefits, BEOG (Pell) and SEOG grants. The adjustment was made on the basis of reported federal outlays for these programs, prorated to a per-student basis. In addition, the total amount of federal and state income tax expenditures for parental personal exemptions (see tables 5.1 and 6.1) was divided by the number of

[1]Although one could argue that residential students incur greater costs than they would if they were not students and lived at home, data are lacking as to what proportion of nonstudents live at home. Actually, this proportion may be smaller than it is for students. If so, nonstudents may, in fact, expend more for room and board than do students. Also, although students do have transportation costs, so do nonstudents--perhaps more: Which group is more likely to purchase a car or take a trip? Again, suitable data are not available. In any case, such inquiries would lead to further difficulties regarding distinctions between consumption versus investment costs.

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FTE students and subtracted from per-student direct costs. Finally, it was assumed that, on average, the amount of financial aid received by a full-time freshman was about the same as that received by any other full-time undergraduate. The NLS data, which cover freshmen through seniors, suggest that this assumption is plausible.

To estimate net direct costs for full-time graduate students, direct costs for undergraduates were multiplied by the ratio of graduate to undergraduate average tuition for each year. The ratios used were a composite of national averages (taken from NCES Digest of Education Statistics, 1974 and 1980 editions); the ratios reflect the differences between the public and private sectors with respect to tuition rates and proportions of graduate students enrolled. Net direct costs were obtained by subtracting from direct costs the same average amount of financial aid used in the calculation for undergraduates. No national data base could be found as a basis for an alternative calculation.

Total net costs for students and their families are shown in table 9.2. There is an aspect of the calculation of total net direct costs that requires some discussion. The estimate of total direct costs is based on the HEGIS universe of accredited colleges and universities (see note a, table 9.2). Net direct costs are calculated, in part, by using total federal student aid dollars (for Pell grants, SEOGs, veterans' benefits, social security benefits, and parental personal tax exemptions) as an offset to direct costs. But some federal student aid recipients are enrolled in institutions that are not part of the HEGIS universe. Thus the offset is excessive with respect to the way in which costs are calculated, and therefore the student-family net direct cost estimates are too low.

The size of this problem is difficult to assess. The data used for veterans' benefits and social security benefits (see table 5.1) reflect only payments going to "college-level" students (that is, payments for primary and secondary education, and for adult and continuing education, have been subtracted from the total federal effort in these two areas). It is difficult to determine how many of the college-level students are attending non-HEGIS institutions. There is some evidence to suggest that the number may be fairly small. In 1978, for instance, less than 1 percent of the 1.14 million college-level students receiving veterans' benefits were in non-degree programs (U.S. Veterans Administration 1979); and it appears that most degree-granting institutions are included in the HEGIS universe. Data on Pell grant recipients suggests that around 5 percent of Pell grant funds go to students who are not enrolled in HEGIS institutions (U.S. Bureau of Student Financial Assistance 1979). If that 5 percent figure is taken as representing the amount of the student aid offset that ought not be used in the student-family net cost calculation, then, in 1980, for example, student-family net direct costs would increase 10 percent from $3260 million to $3600, while total net costs would increase only 1 percent from $34,950 to $35,290 (table 9.2).

The adjustment in question was not made in the data presented in table 9.2 because no firm basis for a specific adjustment could be found, and because there is reason to believe that the amounts of certain other forms of student aid may have been underestimated. For instance, the calculation of net direct costs includes student-reported estimates of institutional aid. Those estimates add up to only about $700 million in 1980 (using the procedures outlined in note a, table 9.2), while the institutions themselves report spending about $2230 million for scholarships and fellowships. While large amounts of the latter expenditures are for programs, such as SEOG and some state student aid that students report on separately, it does seem likely that several hundred million dollars of

institutional aid have not been accounted for in the net direct cost figures for 1980 (table 9.2). This additional aid is probably of the same order of magnitude as the student aid monies which went to non-HEGIS students. Tuition reimbursement from employers, which by 1980 totaled about $300 million annually, is another source of student aid that is likely to be underreported in the data used here. The students surveyed in the NLS and CIRP are unlikely to be representative of those who typically receive this form of financial assistance. For present purposes, it was assumed that the various over- and underestimates would cancel each other. Unfortunately, these data could not be estimated with much assurance, so the net direct cost figure can only be taken as a rough indication of the actual value.

The NLS provides foregone earnings for 1973, 1974, 1975, and 1976 for full-time undergraduates. Foregone earnings are calculated by first computing a weighted average of four-year and university student earnings and "other schools" student earnings for each of the nine cells formed by intersecting the categories low ability, low SES through high ability, and high SES. These weighted averages are then subtracted, cell by cell, from the earnings of comparable nonstudents in the nine cells. These foregone earnings by (9) cells then are weighted by the proportion of all students (four-year and university plus other schools) in each of the nine cells. The nine values are then summed to yield foregone earnings.

These values, however, are only for freshmen in 1973, sophomores in 1974, juniors in 1975, and seniors in 1976. Therefore, for each year the direct costs and foregone earnings of other classes must be first inflated or deflated by the CPI, as appropriate, and then adjusted by the proportion of students at each class level. These values must then be summed for each class for each year. For example, in 1973, freshmen data can be read directly. Sophomores' foregone

earnings data from 1974 must be deflated by the CPI increase between 1973-74 (value is .918). Juniors' data for 1975 and seniors' data for 1976 must also be deflated (.823 and .771, respectively). Because the proportions of each class are .348 (freshmen), .251 (sophomores), .217 (juniors), and .184 (seniors), respectively, these weights are then applied to the foregone earnings data, and the obtained values are again summed.

The above procedure yields data on foregone earnings for full-time undergraduates for the period from 1973 through 1976. Values for the years 1977, 1979, and 1980 were obtained by simple linear extrapolation from the data for that period. To estimate indirect costs for full-time graduate students, foregone earnings for undergraduates were multiplied by the ratio of after-tax earnings of college graduates to the after-tax earnings of high school graduates, for each year in the analysis.

Highlights. The period 1973-1980 witnessed the following in regard to student and family costs of higher education.

- The total net costs to students and their families
  - increased 105 percent in current dollars, from $17.1 billion to $35 billion, while student FTEs were rising 18.3. percent
  - increased 13 percent in constant dollars (CPI)
  - constituted one-third of total higher-education costs
- The total net direct cost to students and their families
  - remained just a small fraction of one percent of personal disposable income

- Average total net costs for full-time undergraduate students

  - Increased 68 percent in current dollars from $2600 to $4380 per year
  - decreased 7 percent in constant dollars (CPI)

- Average total net costs for full-time graduate students

  - Increased 83 percent in current dollars, from $3890 to $7120 per year
  - increased just one percent in constant dollars (CPI)

Table 9.1 Direct and Indirect Costs per Full-Time Student, FY1973-80

	1973	1975	1977	1979	1980
Net Direct Costs					
Undergraduates	$298	$136	$129	$158	$243
Graduates	471	345	414	557	771
Indirect Costs					
Undergraduates	2303	2788	3263	3884	4238
Graduates	3417	4186	4810	5956	6349
Total Net Costs					
Undergraduates	2601	2924	3392	4042	4481
Graduates	3888	4531	5224	6513	7120

Table 9.2 Student-Family Share, FY1973-80 (Millions of Dollars)

	1973	1975	1977	1979	1980	% Change FY 1973-80 Current $s	% Change FY 1973-80 Constant $s*
Net Direct Costs[a]	$2,140	$1,260	$1,880	$2,350	$3,260	52%	- 16%
Indirect Costs[b]	14,940	20,010	23,225	27,870	31,690	112	17
Total	17,080	21,270	25,105	30,220	34,950	105%	13%

* CPI used to convert current to constant dollars.

a To estimate the total student-family share of higher-education financing, costs that are related to both full-time and part-time attendance must be included. Direct costs for all students were estimated as follows. Total (assessed) tuition revenues for all institutions were obtained from HEGIS (see segment two). Expenditures for books and supplies were calculated by multiplying the average expenditures for a full-time student by the total number of full-time equivalent students (HEGIS universe). Total assessed tuition and fees added to total expenditures on books and supplies yields total direct costs. To obtain net direct costs: first, the average student-reported subsidy per full-time undergraduate student (including non-recipients) was multiplied by the total number of full-time students at all levels; then one-half of that average subsidy was multiplied by the full-time equivalent number of part-time students; the two student-reported subsidy amounts were added to adjustments for veterans' benefits, social security benefits, Pell grants, and SEOGs (on the basis of reported federal outlays for these programs), and for federal and state student-related tax exemptions; finally, the total amount of student subsidies was subtracted from total direct costs to yield the total net direct costs shown above.

b To estimate indirect costs, the foregone earnings per full-time student were multiplied by the number of full-time undergraduate and graduate students, respectively. The sum of these totals for the two student levels is shown in table 9.2, as it was assumed that part-time students would incur no foregone earnings. This assumption is probably conservative, suggesting that the indirect costs are likely to be underestimated.

Table 9.3 Student-Family Share in Perspective

Student-Family Total Net Cost as a Percent of:	1973	1975	1977	1979	1980
GNP*	1.3%	1.4%	1.3%	1.2%	1.3%
Gross Private Domestic Investment	7.4	10.3	7.8	7.1	8.7
Total Cost of Higher Education	33.3	32.0	32.9	33.6	33.7
Student-Family Total Net Direct Costs as a Percent of:					
Disposable Personal Income	.23	.11	.14	.14	.18
Educational and General Expenditures at Colleges and Universities	9.5	4.5	5.6	5.9	7.3

* Adjusted upward by amount of foregone earnings

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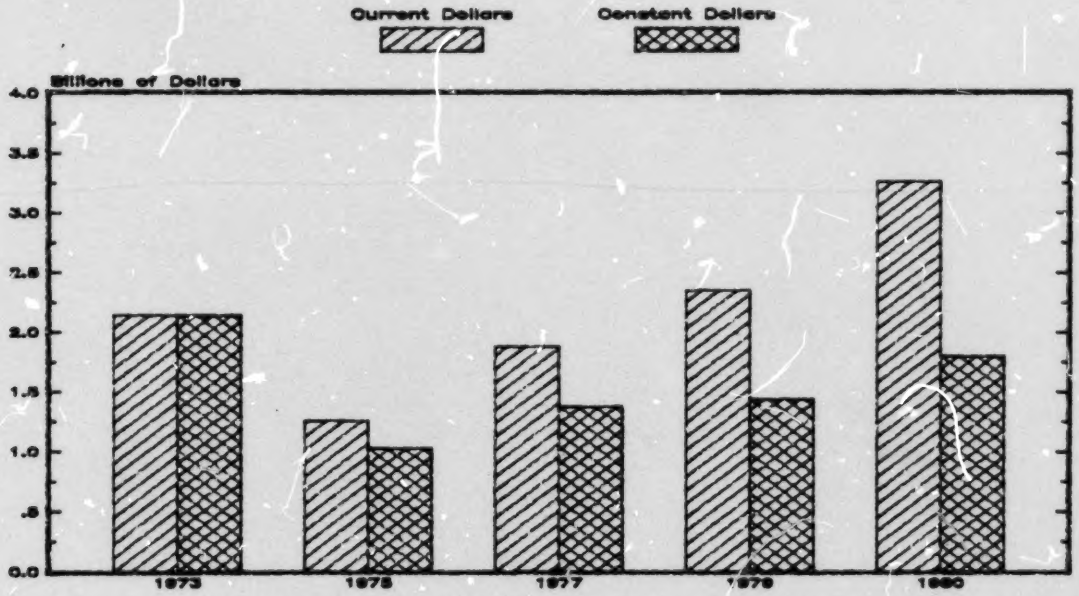

Fig. 9.1: Student-Family Net Direct Costs, FY 1973-80. [Source: see Table 9.1; CPI used for constant dollars.]

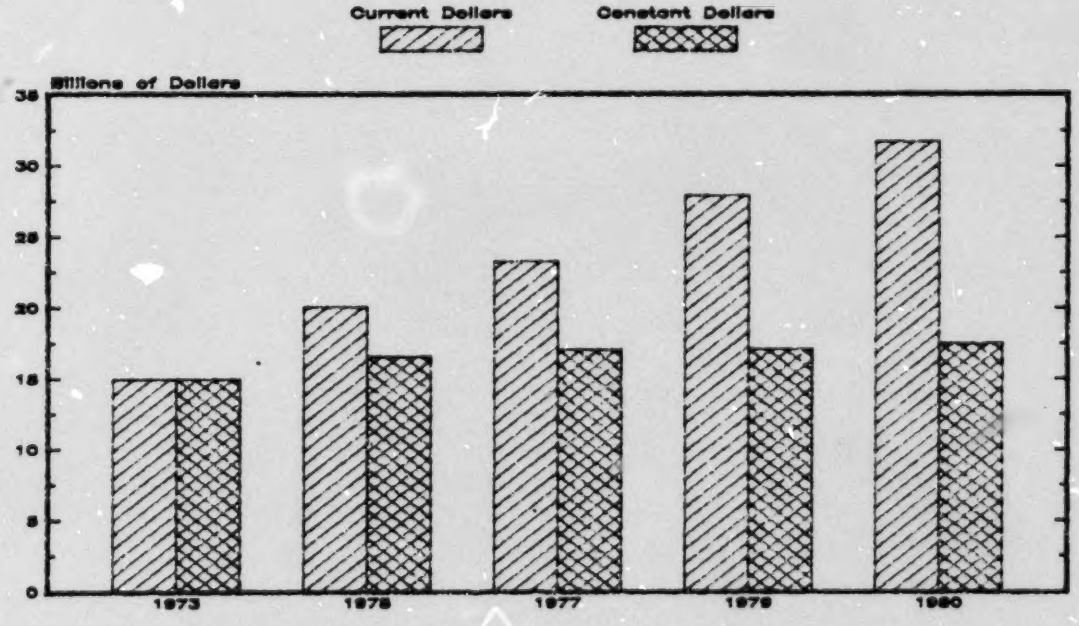

Fig. 9.2: Student-Family Indirect Costs, FY 1973-80. [Source: see Table 9.1; CPI used for constant dollars.]

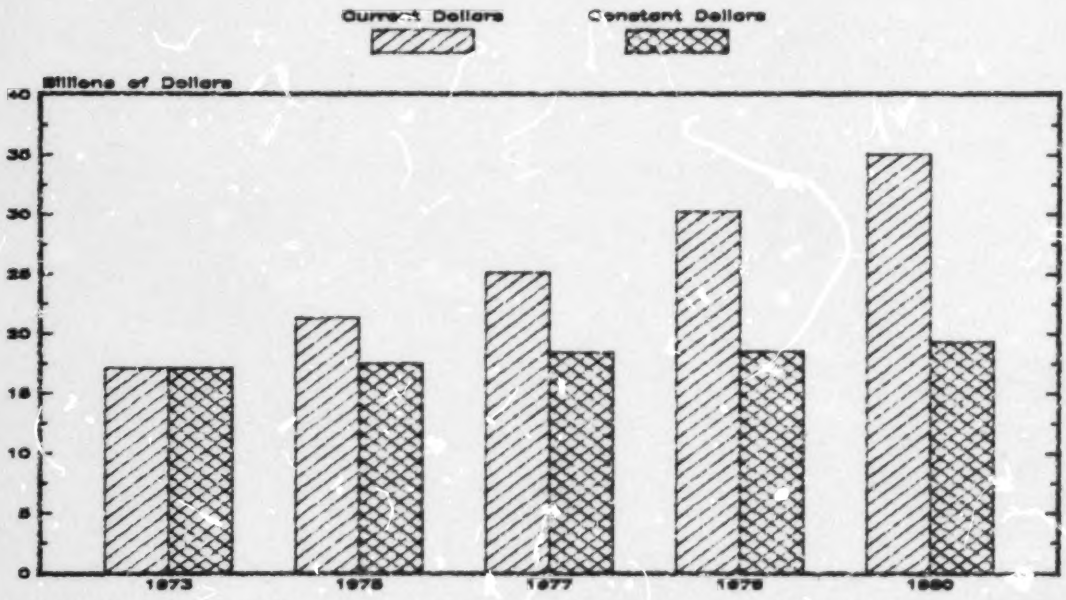

Fig. 9.3: Student and Family Total Net Costs of Higher Education (including foregone earnings), FY 1973-80. [Source: see Table 9.1; CPI used for constant dollars.]

The Total Cost of Higher Education

This concluding segment is designed to serve several purposes. The first is to indicate how total financial support for higher education is divided among consumers, investors, and producers--those who make it happen. The second purpose is to provide estimates of the total amount of support--and to display those estimates in the context of other characteristics of the nationa. economy. Finally, estimates are provided that are meant to give some indication how higher-education resources are deployed (by type of cost).

Many of the policy-related discussions about higher-education financing revolve around the question, who ought to pay what share? While the data shown here do not address that value-laden question directly, they do provide relevant background information. At least they make clear who did pay what share during the middle and late 1970s (tables 10.1 through 10.3). Although it should be obvious, it may be worth reminding the reader that the data are highly aggregated, and that especially in the case of students and of states, the "shares" refer only to an abstract collective entity. The portion contributed by a particular student or a particular state may be quite different than the averages indicate.

An estimate of the total cost of higher education, i.e., the sum of all financial resources used for that purpose, can be arrived at in basically two ways. One way is to simply add up the reported contributions made by the federal, state, and local governments, by private donors, by the institutions of higher education, and by students and their families. This approach will be emphasized in the tables and figures below. It flows immediately out of the analysis to this point, and it facilitates addressing the distribution, or shares, issue. The alternative approach is to add estimated indirect costs (implicit rent, depreciation, tax expenditures, and foregone earnings) to reported institutional expenditures plus any direct costs not

covered in whatever expenditure category is chosen. This second procedure is the customary one (for example, see Cohn 1977), and may be preferable when the objective is limited to estimating total cost. Estimates based on the two procedures are compared in table 10.6.

In the first four segments of this document, the focus was entirely on reported revenues and expenditures or other monetary transactions such as additions or transfers to a fund. In segments five through nine, other types of costs such as implicit rents and foregone earnings were introduced. The presence of a variety of ways in which resources are used on behalf of higher education suggests that there is utility in disaggregating total costs in terms of types and purposes of costs (tables 10.4, 10.5, and 10.6).

Data issues. Numerous specific data issues have been discussed in segments five through nine. All are relevant with respect to the summative data in the tables that follow. The data in this segment are the result of a series of interpretations, interpolations and extrapolations, imputations, and other sorts of estimates. Precision of a high order is not intended nor should it be read into the data.

As noted earlier, total costs can be estimated by adding reported institutional expenditures to estimated indirect costs. Two expenditure categories are plausible choices for this purpose: educational and general (E&G) and current fund expenditures. The former fits best with the overall approach taken here, which is to include only those costs specifically related to the three, generally accepted functions of higher education: instruction, research, and public service. Current fund expenditures, on the other hand, include auxiliary enterprises, hospitals, and independent operations. E&G expenditures can be expected to include all direct costs except student expenditures for books and supplies. Estimates for the latter expenditures are included in the estimates shown in table 10.6.

In tables 10.4, 10.5, and 10.6, the figures for capital costs primarily reflect capital outlays. Note that they also reflect that portion of the additions to the current fund not needed to cover the year's operating expenses. The notion here is that a "surplus" consisting of the sum of additions to, minus deductions and mandatory transfers from, the current fund (see table 3.2) typically is capitalized--it usually ends up in the endowment, loan, or plant funds. This surplus, then, is subtracted from operations and added to capital costs when those categories are displayed separately in the tables that follow. (There were no comparable deficits at the level of aggregation employed in this segment.)

Highlights. During the period from 1973 to 1980, the following developments occurred in total financial support for higher education.

- Shares, by contributor

  - no dramatic changes in shares
  - state and local governments, institutions of higher education, and students and their families increased their shares slightly
  - the federal government share declined slightly, as did that of private donors
  - state and local government retained the largest share of total costs--38 percent in 1980
  - students and their families contributed about one-third of total financial support
  - the federal government contributed about 17 to 18 percent of the total, gradually declining from a peak of 18.6 percent in 1975 to 17 percent in 1980

- Support levels and price inflation

  - all contributors kept up with inflation as measured by the HEPI, but private donors failed to keep up when their contributions are adjusted by the CPI
  - on a per student basis
    - no contributor kept up with inflation measured by the CPI
    - only the federal government and private donors failed to keep up with inflation measured by the HEPI
    - total support for higher education increased 2.4 percent measured by the HEPI

- Shares, by types of cost

  - direct costs declined a few percentage points as a portion of total costs
  - by 1980, the split between direct and indirect costs had narrowed to 52.1 percent to 47.9 percent, respectively
  - foregone earnings remained at about 30 percent of total costs
  - the cost of operations remained at about 45 percent of total costs

- The total amount of resources devoted to higher education

  - remained just under 4 percent of GNP
  - remained a little over 6 percent of personal consumption expenditures
  - increased from $245 to $461 per capita, an 88 percent increase in current dollars, and a 4 percent increase in constant dollars (CPI)

Table 10.1 Total Resources Devoted to Higher Education, by Source, FY1973-80 (Millions of Dollars)

	1973	1975	1977	1979	1980
Federal Government [a]	$ 9,210	$12,350	$13,830	$15,570	$17,630
State and Local Government	19,190	25,500	29,560	34,700	39,420
Voluntary Support	1,470	1,400	1,775	2,050	2,500
Higher-Education Institutions	4,395	5,955	6,060	7,340	9,205
Students and Family	17,080	21,270	25,105	30,220	34,950
Total [b]	51,345	66,475	76,330	89,880	103,705

Source: See tables 5.1, 6.1, 7.1, 8.1, and 9.2.

[a] When grouped in this fashion, the federal government's share is overstated in the sense that a small portion of federal dollars go to students who are not part of "higher education" in the limited meaning of the term, namely, the HEGIS universe of colleges and universities. To a lesser extent, this is also true for the state government's contribution. Any overstatement of the federal contribution, however, is probably more than matched by underestimates built into the figures shown (see Finn 1978, p. 10 and 11, notes d and u).

[b] These figures can best be interpreted as referring to the limited meaning of "higher education" appropriate to the HEGIS universe. While federal aid going to students outside the HEGIS universe is included, this assistance, as mentioned in footnote a, is used as an offset against the HEGIS-derived costs incurred by students and their families. Some of the state funds included here also flow to students and institutions outside the HEGIS universe, but the amount of money is likely to be quite small in the aggregate.

Table 10.2 Total Resources Devoted to Higher Education, by Source, FY1973-80 (Percentage Shares)

	1973	1975	1977	1979	1980
Federal Government	17.9%	18.6%	18.1%	17.3%	17.0%
State and Local Government	37.4	38.4	38.7	38.6	38.0
Voluntary Support	2.9	2.1	2.3	2.3	2.4
Higher-Education Institutions	8.6	9.0	7.9	8.2	8.9
Students and Family	33.3	32.0	32.9	33.6	33.7
	100%	100%	100%	100%	100%

Table 10.3 Total Resources Devoted to Higher Education, by Source. Percent Change FY1973 to FY1980, Current and Constant Dollars

	% Change Current $s	% Change Constant $s (CPI)	% Change Constant $s (HEPI)	% Change Constant $s Per FTE Student (CPI)	% Change Constant $s Per FTE Student (HEPI)
Federal Govt.[a]	91%	5.5%	14.9%	-10.9%	- 2.9%
State & Local Government	105	13.2	23.3	- 4.3	4.2
Voluntary Support	70	-6.3	2.0	-20.8	-13.8
Higher-Education Institutions	109	15.4	25.7	- 2.5	6.2
Students and Family[a]	105	12.7	22.8	- 4.7	3.7
Total	102%	11.3%	21.2%	- 5.9%	2.4%

a These figures are likely to be affected by the relationship between federal student aid and the student-family share mentioned in footnote a, table 10.1. The composition of federal student aid changed substantially between 1973 and 1980. In particular, veterans' benefits constituted 48 percent of all federal student aid in 1973, but only 20 percent in 1980. It is likely that payments to veterans happens to be the form of aid that most readily flows to students outside the HEGIS universe. If so, then the actual increase in the student-family contribution will have been slightly less than that shown here, and the increase in the federal contribution will have been slightly higher than that shown here.

Table 10.4 Total Cost of Higher Education, by Type of Cost, FY1973-80 (Millions of Dollars)

	1973	1975	1977	1979	1980
Direct Costs					
Operations	$23,960	$29,605	$35,225	$41,195	$47,235
Capital	4,265	4,645	5,160	5,600	6,840
Subtotal	28,225	34,250	40,385	46,795	54,075
Indirect Costs					
Tax Expenditures*	2,420	3,025	3,760	4,435	5,040
Depreciation	1,700	2,010	2,360	2,700	2,900
Implicit Rent	4,060	7,180	6,600	8,080	10,000
Foregone Earnings	14,940	20,010	23,225	27,870	31,690
Subtotal	23,120	32,225	35,945	43,085	49,630
Total Costs	51,345	66,475	76,330	89,880	103,705

* Tax exclusion only; parental personal exemptions and deductions for corporate and individual contributions have been included under direct costs.

Table 10.5 Total Cost of Higher Education, by Type of Cost, FY1973-80 (Percentage Shares)

	1973	1975	1977	1979	1980
Direct Costs					
Operations	46.7%	44.5%	46.1%	45.8%	45.5%
Capital	8.3	7.0	6.8	6.2	6.6
Subtotal	55.0	51.5	52.9	52.1	52.1
Indirect Costs					
Tax Expenditures*	4.7	4.6	4.9	4.9	4.9
Depreciation	3.3	3.0	3.1	3.0	2.8
Implicit Rent	7.9	10.8	8.6	9.0	9.6
Foregone Earnings	29.1	30.1	30.4	31.0	30.6
Subtotal	45.0	48.5	47.1	47.9	47.9
Total Costs	100%	100%	100%	100%	100%

Totals and subtotals may not add correctly due to rounding.

* Tax exclusion only; parental personal exemptions and deductions for corporate and individual contributions have been included under direct costs.

Table 10.6 Alternative Approaches to Estimating the Total Cost of Higher Education*

	1973	1975	1977	1979	1980
A. Primarily Based on Consumer-Investor Accounts					
Operations	$23,960	$29,605	$35,225	$41,195	$47,235
Indirect Costs	23,120	32,225	35,945	43,085	49,630
Subtotal	47,080	61,830	71,170	84,280	96,865
Capital	4,265	4,645	5,160	5,600	6,840
Total	51,345	66,475	76,330	89,880	103,705
B. Mix of Consumer-Investor and Institutional Accounts					
Operations					
E&G Expenditures	$22,574	$27,785	$33,417	$40,152	$44,876
Books & Supplies	1,114	1,276	1,443	1,626	1,871
Subtotal	23,688	29,061	34,860	41,778	46,747
Indirect Costs	23,120	32,225	35,945	43,085	49,630
Subtotal	46,808	61,286	70,805	84,863	96,377
Capital	4,265	4,645	5,160	5,600	6,840
Total	51,071	65,931	75,965	90,463	103,217

* Millions of dollars

Table 10.7 Total Resources Devoted to Higher Education* in Perspective

Total Resources Devoted to Higher Education as a Percent of:	1973	1975	1977	1979	1980
GNP**	3.8%	4.2%	3.9%	3.7%	3.9%
Personal Consumption Expenditures	6.3	6.8	6.3	6.0	6.2
Government Purchases of Goods and Services	19.0	19.6	19.2	18.9	19.3
Gross Private Domestic Investment	22.3	32.3	23.6	21.2	25.8
Total Resources Devoted to Higher Education:					
Per FTE Student - Current Dollars	$7,144	$8,594	$9,261	$10,815	$12,196
- Constant Dollars	7,144	7,072	6,758	6,618	6,720
Per Capita - Current Dollars	242	308	346	399	456
- Constant Dollars	242	253	254	244	251

* Using method A, table 10.6.

** GNP adjusted upward by the amount of implicit rent, depreciation, and foregone earnings.

CPI used to convert current to constant dollars.

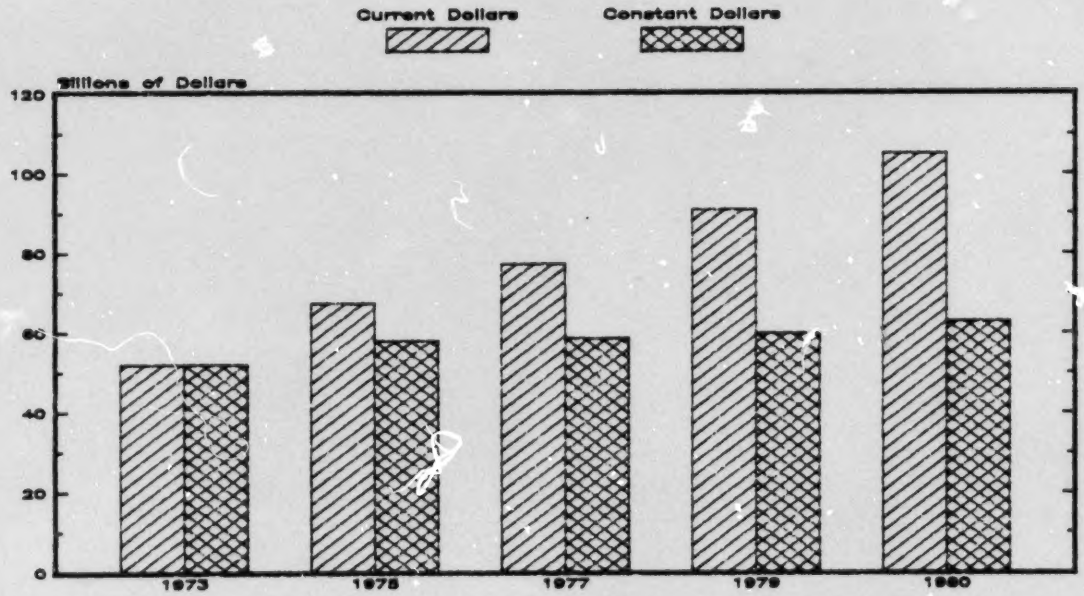

Fig. 10.1: Total Cost of Higher Education, FY 1973-80. [Source: see Table 10.1; HEPI used for constant dollars.]

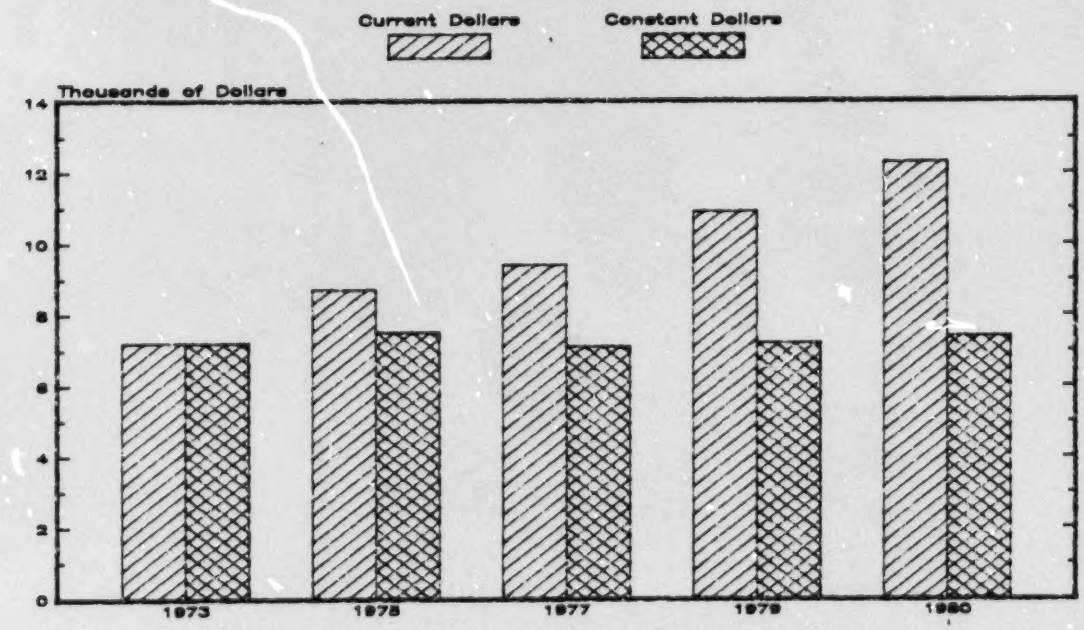

Fig. 10.2: Total Cost of Higher Education per FTE Student, FY 1973-80. [Source: see Table 10.1 for costs; HEGIS used for enrollment; HEPI used for constant dollars.]

APPENDIX A

NCHEMS TAXONOMY OF POSTSECONDARY EDUCATION INSTITUTIONS

NCHEMS Taxonomy of Postsecondary Education Institutions

A. Major Doctoral-Granting Institutions

These institutions are characterized by a significant level of activity in and commitment to doctoral-level education as measured by the number of doctorate recipients and the diversity in doctorate program offerings. Included in this category are those institutions that are not considered specialized schools (see D below) and which grant a minimum of 30 doctoral-level degrees. These degrees must be granted in 3 or more doctoral-level program areas* or, alternatively, have an interdisciplinary program at the doctorate level. Included in the counts of doctorate degrees are the first professional (M.D., D.V.M., O.D., and D.D.S.) degrees.

A.1 Major Research Institutions

These institutions are significantly engaged in research activities as measured by the amount of expenditures for research purposes. These institutions are the leading 75 institutions with regard to research expenditures. (This measure is derived from the annual HEGIS Financial Statistics survey.)

A.2 Other Major Doctoral Institutions

These institutions, while perhaps still involved in research activities, are not as significantly involved as the Major Research Institutions. These institutions include all other major doctoral institutions.

B. Comprehensive Institutions

These institutions are characterized by a strong, diverse post-baccalaureate program (including first professional), but do not engage in significant doctoral-level education. Specifically, this

*Programs or program areas are a major field of study as defined at the two-digit level of the HEGIS Taxonomy of Programs. Subsequent references to program or program area refer to this definition.

category includes institutions not considered specialized schools in which the number of doctoral-level degrees granted is less than 30 or in which fewer than 3 doctoral-level programs are offered.

In addition, these institutions must grant a minimum of 30 post-baccalaureate degrees* and either grant degrees in 3 or more post-baccalaureate programs, or alternatively, have an interdisciplinary program at the post-baccalaureate level.

C. General Baccalaureate Institutions

The institutions are characterized by their primary emphasis on general undergraduate, baccalaureate education. They are not significantly engaged in post-baccalaureate education. Included are institutions not considered specialized institutions in which the number of post-baccalaureate degrees granted is less than 30 or in which fewer than 3 post-baccalaureate level programs are offered, but which either (a) grant baccalaureate degrees and grant degrees in 3 or more baccalaureate programs, or (b) offer a baccalaureate program in interdisciplinary studies. Additionally, over 75% of the degrees granted must be at the baccalaureate level or above.

D. Professional and Specialized Institutions

These are baccalaureate or post-baccalaureate institutions that are characterized by a programmatic emphasis in one area, usually a professional field such as business or engineering. The programmatic emphasis is measured by the percentage of degrees granted in one program area. An institution granting over 60% of its degrees in one field, or granting over half of its degrees in one field and granting degrees in fewer than 5 baccalaureate programs is considered to be a professional or specialized institution.

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*Includes master's, doctorate, and first-professional degrees.

D-0. U.S. Service Schools

Schools under Federal control.

D-1. Divinity Institutions

Institutions in which either the number of professional theological degrees plus the number of other degrees granted in theology (2300 field in the HEGIS Taxonomy) exceeds 50% of all degrees awarded or, alternatively, the number of such degrees awarded exceeds 50% of all degrees awarded and the number of baccalaureate programs offered is fewer than 5.

D-2. Medical Institutions

Institutions which are primarily engaged in health science education and which confer first professional medical degrees such as M.D., O.D., D.D.S., and D.V.M. These institutions are those (a) in which the number of professional health science degrees (medicine, dentistry, optometry, pharmacy, etc.) granted plus the number of other health science degrees (1200 field in the HEGIS Taxonomy) exceeds 60% of all degrees awarded, or, alternatively, the number of such degrees awarded exceeds 50% of all degrees awarded and the number of baccalaureate programs offered is fewer than 5, and (b) which confer first professional medical degrees.

D-3. Other Health Institutions

Institutions which are primarily engaged in health science but which do not confer first professional medical degrees. These institutions are those which satisfy criterion (a) above, but do not award any first professional medical degrees (M.D., D.D.S., O.D., D.V.M.).

D-4. Engineering Schools

Institutions in which either the number of degrees awarded in the area of engineering (0900 field in the HEGIS Taxonomy) exceeds 60% of all degrees awarded, or, alternatively, the number of such degrees awarded exceeds 50% of all degrees awarded and the number of

baccalaureate programs offered in fewer than 5.

D-5. Business and Management Schools

Institutions which confer over 60% of their degrees in the area of business and management science (0500 field in the HEGIS Taxonomy), or, alternatively, the number of such degrees awarded exceeds 50% of all degrees awarded and the number of baccalaureate programs offered is fewer than 5.

D-6. Art, Music, and Design Schools

Institutions which either confer over 60% of their degrees in the area of art, music, and/or design (1000 field in the HEGIS Taxonomy), or, alternatively, the number of such degrees awarded exceeds 50% of all degrees awarded and the number of baccalaureate programs offered is fewer than 5.

D-7. Law Schools

Institutions in which either the number of professional law degrees (L.L.B. or J.D.) plus the number of other degrees awarded in law (1400 field in the HEGIS Taxonomy) exceeds 60% of all degrees awarded, or, alternatively, the number of such degrees awarded exceeds 50% of all degrees awarded and the number of baccalaureate programs offered is fewer than 5.

D-8. Education Schools

Institutions which confer over 60% of their degrees in education (0800 field in the HEGIS Taxonomy), or, alternatively, the number of such degrees awarded exceeds 50% of all degrees awarded and the number of baccalaureate programs offered is fewer than 5.

D-9. Other Specialized or Professional Schools

Institutions which grant degrees in fewer than three programs at the baccalaureate level, master's level, and the doctorate level, and which did not confer over 50% of their degrees in any of the above categories.

E. Two-Year Institutions

These are institutions which confer fewer than 25% of their degrees at the baccalaureate or post-baccalaureate level, and confer over 75% of their degrees or awards for two years of work, or formal awards and completions requiring less than two years of work. Institutions with a two-year upper division program would not fall in this category because they grant baccalaureate degrees. These institutions can be further classified by their program emphasis in either occupational areas or general academic preparation.

E-1. Comprehensive Two-Year Institutions

Institutions in which the number of degrees awarded in occupational and vocational areas is greater than 20% but less than 80% of all degrees awarded.

E-2. Academic Two-Year Institutions

Institutions in which the number of degrees awarded in the academic area (5600 field in the HEGIS Taxonomy) is at least 80% of all degrees awarded.

F-3. Multiprogram Occupational Two-Year Institutions

Institutions which confer degrees or awards in two or more occupational programs and which grant less than 20% of their degrees in the academic area (5600 field in the HEGIS Taxonomy).

Table A-1.

	Type of Institution	Public	Private
A.	Major Doctoral-Granting Institutions	110	63
A.1	Major Research Institutions	51	26
A.2	Other Major Doctoral Institutions	59	37
B.	Comprehensive Institutions	248	150
C.	General Baccalaureate Institutions	119	634
D.	Professional and Specialized Institutions	83	535
D.0	U.S. Service Schools	8	0
D.1	Divinity Institutions	0	270
D.2	Medical Institutions	32	22
D.3	Other Health Institutions	2	32
D.4	Engineering Schools	14	25
D.5	Business and Management Schools	2	45
D.6	Art, Music, and Design Schools	4	45
D.7	Law Schools	1	20
D.8	Education Schools	20	32
D.9	Other Specialized or Professional Schools	0	44
E.	Two-Year Institutions	910	246
E.1	Comprehensive Two-Year Institutions	631	48
E.2	Academic Two-Year Institutions	50	102
E.3	Multiprogram Occupational Two-Year Institutions	229	96
	TOTAL	1,470	1,628

APPENDIX B

HEGIS FINANCE SURVEY

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
EDUCATION DIVISION
WASHINGTON, D.C. 20202

HIGHER EDUCATION GENERAL INFORMATION SURVEY (HEGIS XIV)

FINANCIAL STATISTICS OF INSTITUTIONS OF HIGHER EDUCATION FOR FISCAL YEAR ENDING 1979

PLEASE READ INSTRUCTIONS BEFORE COMPLETING THIS FORM.

FORM APPROVED OMB NO. 51-R0566

1. INSTITUTION CODE NUMBER

2. DUE DATE
October 31, 1979

Each item on this page should be completed by all institutions. Please return the completed form either directly to Department of Health, Education, and Welfare, Education Division, National Center for Education Statistics, ATTN: Room 3073-HEGIS, 400 Maryland Avenue, SW., Washington, D.C. 20202, or to the HEGIS coordinator, if there is a HEGIS coordinator in your State.

3. NAME AND MAILING ADDRESS OF INSTITUTION OR CAMPUS COVERED BY THIS REPORT *(include city, State, and ZIP code)*

4. NAME AND TITLE OF RESPONDENT

5. TELEPHONE NUMBER OF RESPONDENT *(area code, local number, and extension)*

6. PLEASE NOTE THAT EACH INSTITUTION, BRANCH, CAMPUS OR OTHER ENTITY SEPARATELY CERTIFIED BY THE ACCREDITATION AND INSTITUTIONAL ELIGIBILITY UNIT OF THE U.S. OFFICE OF EDUCATION, WITH ITS OWN PICE CODE, AND LISTED SEPARATELY IN THE EDUCATION DIRECTORY - HIGHER EDUCATION, SHOULD BE REPORTED ON A SEPARATE SURVEY FORM AND NOT INCLUDED OR COMBINED WITH ANY OTHER SUCH CERTIFIED UNIT. BRANCHES, CAMPUSES, AND OTHER ORGANIZATIONAL ENTITIES NOT SEPARATELY CERTIFIED SHOULD BE INCLUDED WITH THE APPROPRIATE INSTITUTION OR BRANCH REPORT. IF SUCH ARE INCLUDED IN THIS REPORT, PLEASE LIST THEM BELOW.

ARE DATA FOR THIS UNIT INCLUDED IN THIS REPORT?	NAME OF BRANCH AND/OR OTHER CAMPUS	ADDRESS *(city, State, and ZIP code)*
☐ YES ☐ NO		
☐ YES ☐ NO		
☐ YES ☐ NO		

7. IF THE EDUCATIONAL ORGANIZATION OR ENTITY COVERED BY THIS SURVEY REPORT IS PART OF A MULTI-CAMPUS INSTITUTION, OR PART OF A SYSTEM OF INSTITUTIONS, PLEASE ENTER THE NAME OF THE INSTITUTION OR SYSTEM BELOW.

IF NOT APPLICABLE, CHECK HERE → ☐

DEFINITIONS

MULTI-CAMPUS INSTITUTION. An organization bearing a resemblance to an institutional system, but unequivocally designated as a single institution with either of two organizational structures: (1) an institution having two or more campuses responsible to a central administration (which central administration may or may not be located on one of the administratively equal campuses) or (2) an institution having a main campus with one or more branch campuses attached to it.

MAIN CAMPUS. In those institutions composed of a main campus and one or more branch campuses, the main campus (sometimes called the parent institution) is usually the location of the core, primary, or most comprehensive program. Unless the institution-wide or central administrative office for such institutions is reported to be at a different location, the main campus is also the location of the central administrative office.

BRANCH CAMPUS. A campus of an institution of higher education which is organized on a relatively permanent basis (i.e., has a relatively permanent administration), which offers an organized program or programs of work of at least 2 years (as opposed to courses), and which is located in a community different from that in which its parent institution is located. To be considered in a community different from that of the parent institution, a branch shall be located beyond a reasonable commuting distance from the main campus of the parent institution.

INSTITUTIONAL SYSTEM. A complex of two or more institutions of higher education, each separately organized or independently complete, under the control or supervision of a single administrative body.

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PART A - CURRENT FUNDS REVENUES BY SOURCE FOR FISCAL YEAR ENDING 1978

SOURCE		LINE NO.	AMOUNT (whole dollars)
TUITION AND FEES		1	$
GOVERNMENT APPROPRIATIONS			
FEDERAL TOTAL →		2	
through State channels → $			
STATE		3	
LOCAL		4	
GOVERNMENT GRANTS & CONTRACTS			
FEDERAL	UNRESTRICTED	5	
	RESTRICTED	6	
STATE	UNRESTRICTED	7	
	RESTRICTED	8	
LOCAL	UNRESTRICTED	9	
	RESTRICTED	10	
PRIVATE GIFTS, GRANTS AND CONTRACTS	UNRESTRICTED	11	
	RESTRICTED	12	
ENDOWMENT INCOME	UNRESTRICTED	13	
	RESTRICTED	14	
SALES AND SERVICES OF EDUCATIONAL ACTIVITIES		15	
SALES AND SERVICES OF AUXILIARY ENTERPRISES		16	
SALES AND SERVICES OF HOSPITALS		17	
OTHER SOURCES		18	
INDEPENDENT OPERATIONS		19	
TOTAL CURRENT FUNDS REVENUES (sum of Lines 1 through 19)		20	$

PART B - CURRENT FUNDS EXPENDITURES AND MANDATORY TRANSFERS FOR FISCAL YEAR ENDING 1978

FUNCTION	LINE NO.	AMOUNT (whole dollars)
EDUCATIONAL AND GENERAL		
INSTRUCTION	1	$
RESEARCH	2	
PUBLIC SERVICE	3	
ACADEMIC SUPPORT →	4	
Includes libraries of 5 $		
STUDENT SERVICES	6	
INSTITUTIONAL SUPPORT	7	
OPERATION AND MAINTENANCE OF PLANT	8	
SCHOLARSHIPS AND FELLOWSHIPS		
AWARDS FROM UNRESTRICTED FUNDS	9	
AWARDS FROM RESTRICTED FUNDS	10	
EDUCATIONAL AND GENERAL MANDATORY TRANSFERS	11	
TOTAL EDUCATIONAL AND GENERAL EXPENDITURES AND MANDATORY TRANSFERS (sum of Lines 1 through 4, and Lines 6 through 11)	12	
AUXILIARY ENTERPRISES →	14	
Includes mandatory transfers of → 13 $		
HOSPITALS →	16	
Includes mandatory transfers of → 15 $		
INDEPENDENT OPERATIONS →	18	
Includes mandatory transfers of → 17 $		
TOTAL CURRENT FUNDS EXPENDITURES AND MANDATORY TRANSFERS (sum of Lines 12, 14, 16, and 18)	19	$

PART C - PHYSICAL PLANT ASSETS FOR FISCAL YEAR ENDING 1978

TYPE OF ASSET (1)	LINE NO.	BOOK VALUE AT BEGINNING OF YEAR (2)	ADDITIONS DURING YEAR (3)	DEDUCTIONS DURING YEAR (4)	BOOK VALUE AT END OF YEAR (5)	CURRENT REPLACEMENT VALUE (estimate) (6)
LAND	1	$	$	$	$	
BUILDINGS	2					$
EQUIPMENT	3					

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PART D - INDEBTEDNESS ON PHYSICAL PLANT FOR FISCAL YEAR 1979

INSTITUTION CODE NUMBER

BALANCE AND TRANSACTION	LINE NO.	AMOUNT (whole dollars)
BALANCE OWED ON PRINCIPAL AT BEGINNING OF YEAR	1	$
ADDITIONAL PRINCIPAL BORROWED DURING YEAR	2	
PAYMENTS MADE ON PRINCIPAL DURING THE YEAR	3	
BALANCE OWED ON PRINCIPAL AT END OF YEAR *(Line 1, plus Line 2, minus Line 3)*	4	$
INTEREST PAYMENTS ON PHYSICAL PLANT INDEBTEDNESS	5	$

PART E - DETAILS OF ENDOWMENT ASSETS FOR FISCAL YEAR ENDING 1979

BALANCE AND TRANSACTION	LINE NO.	BOOK VALUE (1)	MARKET VALUE (2)
VALUE OF ENDOWMENT AT THE BEGINNING OF THE FISCAL YEAR	1	$	$
VALUE OF ENDOWMENT AT THE END OF THE FISCAL YEAR	2		
ENDOWMENT YIELD (dividends, interest, rents, royalties, etc.)	3	AMOUNT → $	

PART F - STATEMENT OF CHANGES IN FUND BALANCES FOR FISCAL YEAR ENDING 1979

	LINE NO.	CURRENT FUNDS		LOAN FUNDS	ENDOWMENT FUNDS	ANNUITY AND LIFE INCOME FUNDS	PLANT FUNDS
		UNRESTRICTED (1)	RESTRICTED (2)	(3)	(4)	(5)	(6)
ADDITIONS	1	$	$	$	$	$	$
DEDUCTIONS	2						
TOTAL TRANSFERS INTO (OUT OF)	3						
SUMMARY NET INCREASE/ (DECREASE) FOR YEAR.	4						
FUND BALANCE AT BEGINNING OF YEAR	5						
FUND BALANCE AT END OF YEAR	6						

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DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
EDUCATION DIVISION
WASHINGTON, D.C. 20202

FORM APPROVED
O.M.B. NO. 51-R0686

HIGHER EDUCATION GENERAL INFORMATION SURVEY (HEGIS XIV)

DEFINITIONS AND INSTRUCTIONS

FINANCIAL STATISTICS OF INSTITUTIONS OF HIGHER EDUCATION FOR FISCAL YEAR ENDING 1979

GENERAL

The categories of current funds revenues (Part A), current funds expenditures and mandatory transfers (Part B), and the statement of changes in fund balances (Part F) are consistent with the *College and University Business Administration: Administrative Service* (published in 1974 by the National Association of College and University Business Officers), the *Higher Education Finance Manual* (published in 1975 by the National Center for Education Statistics), and with the *Audits of Colleges and Universities* (as amended August 31, 1974 by the American Institute of Certified Public Accountants).

If you need clarification on any of the definitions or instructions on Parts A-F, please call Mr. Norman Brandt, the survey director, at (202) 245-8392 in Washington, D.C. For clarification on Part G, call Mr. Howard Sales or Mr. Ulvey Harris, Bureau of the Census, at (301) 763-2892.

To avoid unnecessary overlapping of Federal surveys of the finances of your institution, this survey is designed to include the financial statistics previously collected by the U.S. Department of Commerce, Bureau of the Census Form F-13.

Publicly controlled institutions are asked to submit two copies of this survey form to the address below: one for use by the National Center for Education Statistics, and another for use by the Bureau of the Census.

Please complete this survey form and return it to the U.S. Department of Health, Education, and Welfare, Education Division, National Center for Education Statistics, ATTENTION: Room 3073-HEGIS, 400 Maryland Avenue, S.W., Washington, D.C. 20202, not later than October 31, 1979.

Please attach supplemental information, comments, etc., on a separate sheet.

All data reported should be whole dollars only, omit cents.

For any item in any part where exact data do not exist, please give estimates. Items referenced in specific instructions below will be referred to by their line numbers.

Part A. Current funds revenues by source for fiscal year ending 1979

Instructions for Part A. Current funds revenues include all unrestricted gifts and other unrestricted revenues earned during the fiscal year and restricted current funds to the extent that such funds were expended for current operating purposes.

LINE 1. Tuition and fees. Report all tuition and fees assessed against students for current operating purposes. Include tuition and fee remissions or exemptions even though there is no intention of collecting from the student. Include here those tuitions and fees which are remitted to the State as an offset to the State appropriation. (Charges for room, board, and other services rendered by auxiliary enterprises are not reported here. See line 16.)

LINES 2, 3, and 4. Governmental appropriations include all amounts received from or made available to the institution through acts of a legislative body, except grants or contracts. These funds are for meeting current operating expenses and NOT for specific projects or programs. Examples are Federal land-grant appropriations and Federal revenue sharing funds (line 2). Federal appropriations received through State channels is a subset of line 2 and should be included in the line 2 total for Federal appropriations.

LINES 5-10. Governmental grants and contracts. Report revenues from governmental agencies which are for specific research projects or other types of programs. Examples are research projects, training programs, and similar activities for which amounts are received or expenditures are reimbursable under the terms of a government grant or contract. Amounts equal to direct costs incurred should be recorded as charges against current restricted funds and reported as restricted current funds revenues (lines 5, 8, and 10). Related indirect costs recovered should be reported as unrestricted revenues (lines 5, 7, and 9). Do not include BEOGs.

LINES 11 and 12. Private gifts, grants and contracts. Private gifts and grants include revenues from private donors for which no legal consideration is involved. Private contracts include those funds for which specific goods and services must be provided to the funder as stipulation for receipt of the funds. Include only those gifts, grants, and contracts that are directly related to instruction, research, or public service. Moneys received as a result of gifts, grants, or contracts from a foreign government would be reported here. Include the estimated dollar amount of contributed services on line 11.

LINES 13 and 14. Endowment income. Report: (1) the unrestricted income of endowment and similar funds; (2) restricted income of endowment and similar funds to the extent expended for current operating purposes; and (3) income from funds held in trust by others under irrevocable trusts. Do not include capital gains or losses. If any such gains are spent for current operations, these should be treated as transfers, not revenues.

LINE 15. Sales and services of educational activities. Report revenues derived from the sales of goods or services that are incidental to the conduct of instruction, research, or public service. Examples include film rentals, scientific and literary publications, testing services, university presses, and dairy products.

LINE 16. Sales and services of auxiliary enterprises. Report here all revenues generated by the auxiliary enterprise operations of the institution. Auxiliary enterprises are managed as essentially self-supporting activities. Examples are residence halls, food services, student health services, college unions, college stores, barber shops, etc.

LINE 17. Sales and services of hospitals. Include the revenues (net of discounts and allowances) of a hospital operated by the institution. Do NOT include here gifts, grants, appropriations, research revenues, or endowment income. Include revenues of health clinics that are part of the hospital unless such clinics are part of the student health services program.

LINE 18. Other sources. Include all items of revenue not covered elsewhere. Examples are interest income and gains (net of losses) from investments of unrestricted current funds. Include revenues resulting from the sales and services of internal service departments to persons or agencies external to the institution *(e.g., the sale of computer time)*.

LINE 19. Independent operations. Include all revenues associated with operations independent of or unrelated to the primary missions of the institution (i.e., instruction, research, public service) although they may indirectly contribute to these programs. This category generally includes only those revenues associated with major Federally Funded Research and Development Centers.

LINE 20. Total current funds revenues. Report here the sum of lines 1 through 19 inclusive.

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Part B. Current funds expenditures and mandatory transfers for fiscal year ending 1979

Report both unrestricted and restricted current funds expenditures in the following functional classifications:

LINE 1. Instruction. Expenditures of the colleges, schools, departments, and other instructional divisions of the institution and expenditures for departmental research and public service which are not separately budgeted should be included in this classification. Include expenditures for both credit and noncredit activities. Exclude expenditures for academic administration where the primary function is administration (e.g., academic deans). This category includes the following subcategories: general academic instruction; occupational and vocational instruction; special session instruction, community education; preparatory and adult basic education; and remedial and tutorial instruction conducted by the teaching faculty for the institution's students.

LINE 2. Research. This category includes all funds expended for activities specifically organized to produce research outcomes and commissioned by an agency either external to the institution or separately budgeted by an organizational unit within the institution. Do not report non-research sponsored programs (e.g., training programs).

LINE 3. Public service. Report all funds budgeted specifically for public service and expended for activities established primarily to provide noninstructional services beneficial to groups external to the institution. Examples are seminars and projects provided to particular sectors of the community. Include expenditures for community services and cooperative extension services.

LINE 4. Academic support. This category includes expenditures for the support services that are an integral part of the institution's primary missions of instruction, research, or public service. Include expenditures for libraries (line 5), museums, galleries, audio/visual services, academic computing support, ancillary support, academic administration, and personnel development, and course and curriculum development. (Include line 5 expenditures in the line 4 total for academic support.) Line 4 is NOT the sum of lines 1, 2, and 3.

LINE 6. Student services. Report funds expended for admissions, registrar activities, and activities whose primary purpose is to contribute to students' emotional and physical well-being and to their intellectual, cultural, and social development outside the context of the formal instruction program. Examples are career guidance, counseling, financial aid administration, student health services (except when operated as a self-supporting auxiliary enterprise).

LINE 7. Institutional support. Report expenditures for the day-to-day operational support of the institution, excluding expenditures for physical plant operations. Include general administrative services, executive direction and planning, legal and fiscal operations, and community relations.

LINE 8. Operation and maintenance of plant. Report all expenditures for operations established to provide service and maintenance related to campus grounds and facilities used for educational and general purposes. Do not include expenditures made from the institutional plant funds accounts.

LINES 9 and 10. Scholarships and fellowships. This category applies only to monies given in the form of outright grants and trainee stipends to individuals enrolled in formal coursework, either for credit or not. Do not report Federal Basic Educational Opportunity Grants, ROTC scholarships, or other programs where the institution is not allowed to select the recipient of the grant. Aid to students in the form of tuition or fee remissions should be included. (Exclude those remissions which are granted because of faculty or staff status. Charge these to staff benefits.) [Do not report College Work Study program expenses here; report these expenses where the student served (e.g., dining halls, line 14; for a professor, line 1, etc.). If necessary, estimate.]

LINE 11. Educational and general mandatory transfers. Mandatory transfers from current funds are those that must be made in order to fulfill a binding legal obligation of the institution. Report mandatory debt-service provisions relating to academic and administrative buildings, including (1) amounts set aside for debt retirement and interest, and (2) required provisions for renewal and replacements to the extent not financed from other sources.

LINE 12. Total educational and general expenditures and mandatory transfers. Enter here the sum of lines 1 through 4 plus 6 through 11.

LINE 13. Mandatory transfers for auxiliary enterprises. Report the amount transferred from current funds for mandatory debt service provisions relating to auxiliary enterprises. Examples include maintenance reserves.

LINE 14. Auxiliary enterprises. This category includes those essentially self-supporting operations which exist to furnish a service to students, faculty, or staff, and which charge a fee that is directly related to, although not necessarily equal to, the cost of the service. Examples are residence halls, food services, college stores, and intercollegiate athletics. (Include the mandatory transfers amount on line 13 in the line 14 amount.)

LINE 15. Mandatory transfers for hospitals. Report the amount transferred from current funds for mandatory debt service provisions relating to hospitals.

LINE 16. Hospitals. Report all expenditures, except depreciation, associated with the operation of the hospital, including nursing expenses, other professional services, general services, administrative services, fiscal services, and charges for physical plant operations. (Include the mandatory transfers amount on line 15 in the line 16 amount.)

LINE 17. Mandatory transfers for independent operations. Report the amount transferred from current funds for mandatory debt service provisions relating to independent operations.

LINE 18. Independent operations. Include all funds expended for operations that are independent of or unrelated to the primary missions of the institution, although they may indirectly contribute to the enhancement of these programs. This category is generally limited to expenditures of a major Federally Funded Research and Development Center. Do not include the expenditures of operations owned and managed as investments of the institution's endowment funds. (Include the line 17 amount in the line 18 amount.)

LINE 19. Total current funds expenditures and mandatory transfers. Report the sum of lines 12, 14, 16, and 18.

Part C. Physical plant assets for fiscal year ending 1979

Report the values of land, buildings, and equipment owned, rented, or utilized by the institution. Do not include those plant values which are a part of endowment or other capital fund investments in real estate. Data for your institution which are not kept on the books of account of your institution, but are kept in the records of another organization or agency for your institution, should be included (e.g., State schools should report physical plant even though records are maintained by a State agency). Exclude construction in progress; report completed buildings as an addition when accepted.

LINES 1, 2, and 3. Report the book values of land, buildings, and equipment.

COLUMN (2). Book value of plant at the beginning of fiscal year is intended as the dollar amount of value as shown on the institution's accounting records.

COLUMN (3). Additions during the year are additions to plant made through purchase, by gift-in-kind from donor, and from other additions.

COLUMN (4). Deductions from the plant are deductions resulting from selling, razing, fire or other hazards, or other disposition of assets.

COLUMN (5). Book value of plant at the ending of the fiscal year is intended as the dollar amount of value as shown on the institution's accounting records. Column (5) is the sum of columns (2) and (3), less column (4).

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(COLUMN (6). Report or estimate the current costs to replace all buildings owned or utilized by the institution. Report recent appraisal value or what is currently carried as insurance replacement value. Do not include the replacement values of those buildings which are a part of endowment or other capital fund investments in real estate. This figure is not a book value figure.

Part D. Indebtedness of physical plant for fiscal year ending 1979

In Part D, report data on indebtedness liability against the physical plant. Include auxiliary enterprises facilities as well as educational and general facilities. Examples of auxiliary enterprises facilities are those used for operation of housing, food service, bookstores, and other units which are classified as auxiliary enterprises. Enter zeroes or NA's if your institution has no indebtedness.

LINE 1. Balance owed on indebtedness principal at the beginning of the year is that amount shown in the liability section of the plant fund balance sheet.

LINE 2. Additional principal borrowed during the year is loans negotiated through bonds, mortgages, notes, or any other type of financing (including short-term notes) and amounts borrowed from other institutional funds for physical plant.

LINE 3. Payments on plant loans principal during the year is the amount used to reduce the principal of loans, regardless of the source of funds.

LINE 4. Balance owed on indebtedness principal at the ending of the year is that amount shown in the liability section of the plant fund balance sheet. It is the sum of line 1 plus line 2, less line 3.

LINE 5. Interest payments on physical plant indebtedness. Report the total interest charges paid during the fiscal year on physical plant indebtedness. Exclude principal repayments (see line 3).

Part E. Details of endowment assets for fiscal year ending 1979

In Part E, report the amounts of gross investments of endowment, term endowment and quasi-endowment (funds functioning as endowment). DO NOT reduce investments by liabilities for Part E. (Part F column 4 requests endowment funds net of liabilities and therefore may be different from the totals reported for Part E.)

LINE 1. Value of endowment at the beginning of the fiscal year. Report the book value of endowment in the first column and the market value in the second column. (If market value on some investments is not available, use whatever value was assigned by the institution in reporting market values in the annual financial report.)

LINE 2. Value of endowment at the end of the fiscal year. The book value of endowment at the end of the fiscal year is that figure shown on the accounting records of your institution. Report this value in column (1) and the market value of endowment at the end of the year in column (2).

LINE 3. Endowment yield (dividends, interest, rents, etc.). Yield includes all earnings (not realized gains) on investments of endowments regardless of distribution made of the earnings to various institutional funds.

Part F. Statement of changes in fund balances for fiscal year ending 1979

The "Statement of Changes in Fund Balances" describes the total institutional flow of funds into, out of, and among all the various fund groups. Also included is a summary of the net effect of these flows (including beginning and ending balances) for each fund group. (See Figure 4 in the *Higher Education Finance Manual.)*

LINE 1. Additions. Report all moneys, excluding transfers, added to any fund group during the fiscal year.

LINE 2. Deductions. Report all funds, except transfers, flowing out of any of the fund groups during the fiscal year.

LINE 3. Total transfers into/(out of). Report mandatory and nonmandatory transfers flowing into or out of any of the fund groups during the fiscal year. Transfers are self-balancing across the columns. That is, every transfer results in an equal addition (shown as a positive figure in the receiving fund group column) and deduction (shown as a negative figure in parentheses in the donor fund group column), *therefore the net result always will be zero.*

LINE 4. Net increase (decrease) for year. Report the net change in fund balances from the beginning to the ending of the fiscal year. It is the difference between lines 6 and 5. A net increase is reported as a positive figure and a net decrease is reported as a negative figure (in parentheses).

LINE 5. Fund balance at beginning of year. Report the total of the fund balance prior to any of the flows additions, deductions, and transfers described in the statement for that fund group.

LINE 6. Fund balance at end of year. Report the total for the fund balance after all of the additions, deductions, and transfers described in the statement.

COLUMN (1). Unrestricted current funds. Report those funds that the institution's management may use for any purpose it deems necessary. Include unrestricted funds that are designated by the institution's governing board for a specific use.

COLUMN (2). Restricted current funds. Report those funds that are given to the institution for a very specific aspect of the institution's current operations.

COLUMN (3). Loan funds. Report those funds that have been loaned, or are available for loans to students, faculty, and staff. Do not include loans made to the institution.

COLUMN (4). Endowment funds. This fund group includes funds whose principal is nonexpendable and that are intended to be invested to provide earnings for institutional use. Include term endowment and quasi-endowment funds.

COLUMN (5). Annuity and life income funds. This category includes all funds carrying a stipulation that the institution make payments to one or more specified beneficiaries.

COLUMN (6). Plant funds. Report all unexpended plant funds, funds for renewal and replacement, funds for debt service charges and for the retirement of indebtedness, and the amount of institutional funds invested in physical plant facilities (other than those of endowment and similar funds).

Part G. Ye[illegible]al by PUBLIC institutions only

Part G is designed to meet the data needs of the Bureau of the Census, U.S. Department of Commerce. It is to be completed by publicly controlled institutions only. The set of instructions, definitions, and reporting procedures for Part G differs from that for Part A through F. The instructions are consistent with the U.S. Department of Commerce's classification manual for public jurisdictions that are applied to the finances of all governments. For additional clarification on Part G, call Mr. Howard Sales or Mr. Ulvey Harris, Bureau of the Census, at (301) 763-2892.

LINE 1. Include receipts from sale of products of agricultural experiment station farms and for agricultural extension services.

LINE 2. This information should only be furnished by two-year institutions which are in part financed from taxes levied specifically for the support of an educational institution(s). Include taxes for current restricted and unrestricted funds as well as for plant funds and for debt service.

LINES 3 and 4. Include only Federal funds received for hospitals and agricultural experiment stations and extension services. On line 3 report funds received directly from the Federal Government (e.g., HEW and

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Dept. of Agriculture project grants). On line 4 report Federal monies received through State government agencies including Medicaid payments. All data provided in column (2) should pertain to hospitals in which service to the community or State is paramount (not infirmaries for students).

LINE 5. Report for the functions identified in the column headings gross salaries and wages of the academic and non-academic staff, paid student help, and part-time employees without deduction of withholdings for income tax or employee contributions for social security or retirement coverage. Do not include employer contributions for retirement and other benefits on this line.

LINE 6. Report for the functions identified in the column headings other current expenditures (such as for supplies, materials, contractual services, insurance, etc.). The following types of payments should be excluded from this line: (1) interest on debt, (2) retirement of debt, (3) scholarships and fellowships, (4) capital outlay, (5) investment in securities, (6) making loans, (7) employer contributions of a State education institution to a State administered employee-retirement system, (8) employer contributions of a local education institution to a locally administered employee-retirement system, and (9) interfund transfers.

LINES 7 through 9. Report on line 7 expenditures (from bond fund proceeds and all other funds) for the construction of new structures and other improvements, additions, replacements, and major alterations. Include in column (4) outlays for physical plant utilized by the departments, colleges, schools, and instructional divisions of the institution. Also, include outlays for administrative plant and libraries. On line 8 enter expenditures for the purchase of equipment (replacements as well as additions) and on line 9 the purchase of land and existing structures.

LINE 10. Amount of interest paid including any interest on short-term or nonguaranteed obligations as well as general obligations. Exclude debt principal retirement.

LINES 11 through 14. Report bonds, mortgages, etc., with an original term of more than one year, which are payable solely from pledged earnings, charges, or fees (e.g., dormitory, stadium, and student-union revenue bonds). Include any loans (not "Commitments") from H.H.F.A. and other Federal agencies. Exclude guaranteed long-term debt (i.e., those obligations that are issued by the State and backed by a pledge of credit to the State).

LINES 15 and 16. Report anticipation notes, interest-bearing warrants and other obligations with a term of one year or less. Exclude accounts payable and other noninterest-bearing obligations. Do not include interfund loans, or advances from State funds.

LINES 17 through 21. Report amounts of cash on hand and on deposit, and security holdings (at par value) as to all funds and accounts of your institution except agency accounts held in private trust or custodial capacity, and any contributory employee-retirement system funds. Include endowment funds, loan funds, and plant funds, as well as current funds. Exclude accounts receivable, value of property other than securities, and any amounts held for your institution by the State Treasurer. Sinking funds (column (2)) are reserves held specifically for redemption of long-term debt reported on line 14 (but exclude any amounts for interest obligations). Bond funds (column (3)) are funds established to account for the proceeds of bond issues pending their disbursement.

LINE 19. Report the obligations of the following seven government-owned agencies: CCC, Export-Import Bank, Federal Financing Banks, FHA, GNMA, Postal Service, and TVA.

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